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Operations, Maintenance, and Monitoring (OM&M) 2012 Annual Report

Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey



Prepared for:
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Prepared by:
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April 15, 2013

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**Operation, Maintenance, and Monitoring (OM&M)
2012 Annual Report for**

**Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey**

(USEPA No. NJD980529879)

April 2013

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List of Acronyms and Abbreviations

ARAR	Applicable or Relevant and Appropriate Requirement
ARRCS	Administrative Requirements for the Remediation of Contaminated Sites
CEA	Classification Exception Area
COC	Chain of Custody
CF	Contaminant Flux
EC	Engineering Controls
ENVIRON	ENVIRON International Corporation
FW2	Fresh Water
GWQC	Groundwater Quality Criteria
IAQ	Indoor Air Quality
IC	Institutional Controls
LFPS	Low-flow purge and sample
Morton	Morton International, Inc
µg/l	micrograms per liter
NJDEP	New Jersey Department of Environmental Protection
ng/m ³	nanograms per cubic meter
OM&M	Operation Maintenance and Monitoring
OU-1	Operable Unit 1
RAW	Remedial Action Workplan
ROD	Record of Decision
SE	Saline Water
Site	Ventron/Velsicol Superfund Site Operable Unit 1
SOP	Standard Operating Procedures
TRSR	Technical Requirements for Site Remediation
USEPA	United States Environmental Protection Agency
VBW	Vertical Barrier Wall

1.0 – Introduction

This report summarizes the status of activities being performed as described in the Operation, Maintenance and Monitoring (OM&M) Plan for Engineering and Institutional Controls submitted in July 2011 for the Ventron/Velsicol Superfund Site Operable Unit 1 (Site) in Wood-Ridge, New Jersey. The report was prepared on behalf of Morton International, Inc. (Morton) with the assistance of ENVIRON International Corporation (ENVIRON), the environmental consultant for the Custodial Trust. The Custodial Trust is a trust established pursuant to an order entered on August 9, 2002 by United States Bankruptcy Court approving the formation of the Custodial Trust and Settlement Agreement in the United States Bankruptcy Court for the District of Delaware, In Re Fruit of the Loom, Inc. (No. 9904497). The remedial actions were completed at the Site as summarized in the Remedial Action Report submitted to the United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP) on April 15, 2011. This report summarizes the second year of OM&M activities completed between January 1, 2012 and December 31, 2012.

The OM&M items for the Institutional Controls (ICs) were as follows:

- Deed Notices;
- Contaminant Flux Monitoring Program;
- Air Quality Monitoring in the Wolf Warehouse;
- Classification Exception Area (CEA) Sampling; and
- Vertical Barrier Wall Effectiveness Evaluation.

The OM&M items for the Engineering Controls (ECs) were as follows:

- General Site Inspection;
- Developed Area Caps Inspection;
- Undeveloped Area Cap Inspection;
- Vertical Hydraulic Barrier Wall Inspection;
- Erosion and Sediment Control Inspection; and
- West Ditch and 55-foot Buffer Inspection.

This report summarizes the OM&M activities completed in 2012 for the monitoring and maintenance of the institutional and engineering controls, OM&M activities to be performed next period, and recommendations for future rounds of OM&M.

2.0 – OM&M for Institutional Controls

2.1 Deed Notices

The establishment of deed notices was stipulated for the following properties:

- Wolf Warehouse;
- U.S. Life Warehouse (Reddy Raw);
- Undeveloped Area;
- Prince Packing;
- Blum;
- EJB;
- Ethel Boulevard; and
- Norfolk Southern Railroad.

Properties were inspected quarterly for the excavation or disturbance of soil. The properties were inspected February 23, May 17, August 15, and November 13, 2012. A log of the deed notice inspections is provided in **Table 1**. A figure of the deed notice properties is presented as **Figure 1**. The deed notice field forms indicate that the properties inspected were in acceptable condition. The following comments were noted during the deed notice inspections, but do not require any action at this time:

- On February 23, 2012, at the Prince Packaging property, there were minor surface disturbances in the asphalt in the loading dock area adjacent to Blum Avenue, however, no action was recommended due to the limited nature of the disturbance. These areas were observed again on May 17, August 15, and November 13, but had not expanded.
- On August 15, 2012, at the Prince Packaging property, new underground power lines and a power pole were in the process of being installed. The vertical extent of these excavations and whether unacceptable exposure to soil or groundwater contamination occurred is unknown.
- Throughout 2012, at the U.S. Life Warehouse (Reddy Raw) property, there were no new disturbances to the asphalt parking area. Previously noted minor potholes on the north and west side of the building have not expanded. These potholes will continue to be monitored to ensure there is sufficient material to prevent any unacceptable surface contact.
- Throughout 2012, on Ethel Boulevard, previously noted minor potholes in the road have not expanded. These potholes will continue to be monitored to ensure there is sufficient material to prevent any unacceptable exposure to soils.
- In addition, during Quarter 2 after the deed notice inspections were performed, the asphalt at the Prince Packaging and U.S. Life Warehouse was repaved on May 17, 2012.

Deed notice inspection forms are provided in **Appendix A**. Based upon the Site inspections, the deed notices are being properly maintained at this time.

2.2 Contaminant Flux Monitoring Program

The collection of monitoring data for the contaminant flux monitoring program was performed on a semiannual (twice per year) basis. The purpose of this monitoring is to provide for a remedy that is protective of surface water, by calculating the contaminant flux from groundwater to surface water. This section presents the two main components of contaminant flux monitoring which are the following;

- Synoptic water level measurements, collection, and analysis of groundwater samples; and
- Framework for the future contaminant flux analysis after a minimum of a three-year equilibration period.

The locations of the contaminant flux monitoring wells and piezometers are presented in **Figure 2**.

To date, the first component, a baseline sampling program consisting of the semiannual collection and analysis of groundwater samples from on-site wells is ongoing. Samples were collected using NJDEP's low-flow purge and sample (LFPS) methods. This program will continue during the initial three-year equilibration period. Prior to each sampling event, synoptic water level measurements were obtained on February 20, 2012 and August 13, 2012 from 12 contaminant flux (CF) monitoring wells and four piezometers on-site:

- | | |
|-----------|------------|
| • CF-MW-1 | • CF-MW-9 |
| • CF-MW-2 | • CF-MW-10 |
| • CF-MW-3 | • CF-MW-11 |
| • CF-MW-4 | • CF-MW-12 |
| • CF-MW-5 | • CF-PZ-1 |
| • CF-MW-6 | • CF-PZ-2 |
| • CF-MW-7 | • CF-PZ-3 |
| • CF-MW-8 | • CF-PZ-4 |

Groundwater samples were collected from February 20, 2012 through February 23, 2012 (Quarter 1) and August 13, 2012 through August 16, 2012 (Quarter 3) from 12 CF monitoring wells installed along the downgradient perimeter of the Site near Berry's Creek:

- | | |
|-----------|------------|
| • CF-MW-1 | • CF-MW-7 |
| • CF-MW-2 | • CF-MW-8 |
| • CF-MW-3 | • CF-MW-9 |
| • CF-MW-4 | • CF-MW-10 |
| • CF-MW-5 | • CF-MW-11 |
| • CF-MW-6 | • CF-MW-12 |

Sampling was performed to coincide with the CEA and vertical barrier wall program sampling to minimize duplication of sampling efforts. Samples were analyzed only for arsenic, benzene, and

mercury, the three Site-related Contaminants of Concern (COC), as specified in the OM&M Plan. Analytical results of the contaminant flux sampling are presented in Table 2.

In addition, filtered groundwater samples were analyzed for Site-related COCs when the total metals concentration was above the respective Ground Water Quality Criteria (GWQC). The filtered data provide another line of evidence for the interpretation of the total metals results. In both Quarter 1 and Quarter 3, the dissolved mercury analysis was not run on any of the filtered groundwater samples. Only the dissolved arsenic analysis was run on select filtered groundwater samples exceeding the arsenic GWQC.

For each contaminant flux groundwater sampling event, data validation was conducted on 50 percent of the contaminant flux monitoring groundwater samples submitted for laboratory analysis in accordance with the current NJDEP validation standard operating procedures (SOPs), and USEPA Region 2 SOPs for Data Validation for the respective methods. The case narratives were reviewed for the other 50 percent of groundwater samples for any performance issues the laboratory reported. No data quality noncompliance issues were reported by the laboratory. The data usability reports are included as **Appendix B**.

The second component of contaminant flux monitoring is to evaluate the flux to Berry's Creek. This evaluation will be performed after a minimum three-year equilibration period following the remedial action completion date of April 2011 (anticipated in the 2013 annual report). As described in the Developed Area Remedial Action Workplan (RAW), the solute flux rate of COCs to Berry Creek will be calculated by multiplying the solute concentration of water passing through a defined cross-section by the water flux rate passing through that same cross-section. The fluxes will be evaluated in 10 segments centered on the 10 proposed perimeter monitoring wells (CF-MW-2 through CF-MW-11) along Berry's Creek and Diamond Shamrock/Henkel Ditch (North). This approach is similar to the method used to evaluate flux rates of inorganics in the Feasibility Study Report, pages 4-28 and 4-29.

According to N. J. A. C. 7:9B Surface Water Quality Standards, Berry's Creek is classified as FW2-NT/SE2, which signifies the waterway may have a salt water/fresh water interface. As a result, the calculated COC solute concentrations will be compared to both the Fresh Water (FW2) and the Saline Water (SE) Criteria for human health.

2.3 Air Quality Monitoring in the Wolf Warehouse

Indoor air quality at the Wolf Warehouse was monitored for total atmospheric mercury consisting of gas-phase and particulate concentrations on an annual basis. Indoor air samples were collected on August 2, 2012 through August 3, 2012 (Quarter 3) from four locations, which included three indoor samples, one indoor duplicate sample, and one outdoor (ambient) sample. A building survey was performed before the sampling event to identify any building conditions that needed to be accounted for during the air monitoring event. The samples were collected over a 24-hour period in the breathing zone approximately four feet above ground/floor surfaces.

Indoor air quality (IAQ) measurements of temperature, relative humidity, and barometric pressure were performed at each of the four sampling locations. These measurements were made with a TSI Model No. 8554 IAQ meter.

The mercury sampling methodology used was the *Frontier Geosciences Sorbent Total Mercury Method – Total Gaseous Mercury capture on Iodated Carbon (FGS-009)*. This is a peer-reviewed method developed by Frontier Geosciences, Inc., an analytical laboratory that specializes in low-level mercury analysis. This method was used in previous sampling for mercury in and around the Wolf Warehouse. The method collects gas-phase and particulate-phase atmospheric mercury species by trapping on an iodated carbon matrix. After sampling, the mercury was leached off the iodated carbon using a hot-refluxing $\text{HNO}_3/\text{H}_2\text{SO}_4$ solution, followed by further oxidation using a BrCl solution. Aliquots of the digest were analyzed via *USEPA Method 1631 - Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry*.

The results indicated that the indoor mercury concentration ranged from 25 to 131 ng/m^3 , with an average of 64 ng/m^3 (not including duplicate), compared to a lower outside concentration of 3 ng/m^3 . These results were below the NJDEP Vapor Intrusion Indoor Air Screening Levels of 1000 ng/m^3 . Note that sample concentrations in previous air quality monitoring events were compared to a NJDEP Vapor Intrusion Indoor Air Screening Level of 300 ng/m^3 . NJDEP released updated vapor intrusion guidance in January 2013 that increased the indoor reference value. A technical memorandum summarizing the results of this sampling event is included as Appendix C.

2.4 Classification Exception Area (CEA) Sampling

Groundwater sampling was conducted on a semiannual basis to ensure the protectiveness of the CEA. Groundwater samples were collected from monitoring wells between February 20 and February 23, 2012 (Quarter 1), and between August 13, 2012 and August 16, 2012 (Quarter 3). The samples were collected using NJDEP's LFPS methods. The wells sampled were as follows:

- | | |
|------------|------------|
| • CF-MW-1 | • CF-MW-12 |
| • CF-MW-2 | • BW-MW-1 |
| • CF-MW-3 | • BW-MW-2 |
| • CF-MW-4 | • BW-MW-3 |
| • CF-MW-5 | • BW-MW-4 |
| • CF-MW-6 | • BW-MW-5 |
| • CF-MW-7 | • BW-MW-6 |
| • CF-MW-8 | • BW-MW-7 |
| • CF-MW-9 | • BW-MW-8 |
| • CF-MW-10 | • MW-10 |
| • CF-MW-11 | • MW-11 |

Two former CEA wells were not sampled in 2012; MW8 and MW2 are no longer included in the sampling plan. These wells previously required repair/replacement; however, it was determined that the coverage from the existing well network, including MW-11, was sufficient to define the CEA.

The barrier wall wells BM-MW-1 through BM-MW-8 were sampled on a quarterly basis to evaluate vertical barrier wall effectiveness as discussed in Section 2.5. However, for the purpose of the CEA, only the Quarter 1 and Quarter 3 barrier wall results were considered. The locations of the CEA wells are presented in **Figure 3**.

For the groundwater samples where inorganic COC concentrations exceeded the Site-related GWQC, metals analysis was run on a filtered groundwater sample (providing a dissolved metal result). To form a more comprehensive picture of COC concentrations, both arsenic and mercury trigger a dissolved metals analysis; however the dissolved metal analysis was only run on the compound that was over the GWQC.

The CEA analytical results are presented in **Figure 3**. The presented results show the total metal concentrations and the dissolved metal concentrations, when applicable. The summary of the CEA groundwater sampling results is presented in **Table 3**. The CEA sampling results will be used during the future biennial certification of the CEA.

For each CEA groundwater sampling event, data validation was conducted on 50 percent of the CEA groundwater samples submitted for analytical analysis in accordance with the current NJDEP validation SOPs, and USEPA Region 2 SOPs for Data Validation for the respective methods. The case narratives were reviewed for the other 50 percent of groundwater samples for any performance issues the laboratory reported. No data quality noncompliance issues were reported by the laboratory. The data usability reports are included as **Appendix B**.

Quarter 1 Results

In Quarter 1, the results for total arsenic from ten of the twenty-two sampled wells (BW-MW-2, BW-MW-3, BW-MW-4, BW-MW-6, BW-MW-7, BW-MW-8, CF-MW-1, CF-MW-2, CF-MW-3, and MW-11) exceeded the arsenic (total) GWQC. Three wells (BW-MW-4, CF-MW-8, and CF-MW-9) exceeded the benzene GWQC. Four wells (BW-MW-4, BW-MW-8, and MW-10) exceeded the mercury (total) GWQC. The dissolved arsenic analysis was run on the filtered groundwater sample for the following wells:

- BW-MW-2
- BW-MW-3
- BW-MW-4
- BM-MW-6
- BW-MW-7
- BW-MW-8
- CF-MW-1
- CF-MW-2
- CF-MW-3
- MW-11

The dissolved mercury analysis was run on the filtered groundwater sample for the following wells:

- BW-MW-4
- BW-MW-8
- MW-10

In the filtered groundwater samples, one of the wells exceeded the arsenic GWQC, and none of the wells exceeded the mercury GWQC. The dissolved arsenic results at CF-MW-3 exceeded

the arsenic GWQC. This is the first instance of the filtered groundwater sample exceeding the GWQC in this well during the OM&M program. Trends in COC concentrations will continue to be monitored.

Quarter 3 Results

In Quarter 3, the results for total arsenic from ten of the twenty-two sampled wells (BW-MW-2, BW-MW-3, BW-MW-4, BW-MW-5, BW-MW-7, CF-MW-1, CF-MW-2, CF-MW-4, CF-MW-11, and CF-MW-12) exceeded the arsenic (total) GWQC. Three wells (BW-MW-4, CF-MW-8, and CF-MW-9) exceeded the benzene GWQC. Three wells (BW-MW-4, BW-MW-8, and MW-10) exceeded the mercury (total) GWQC. The dissolved arsenic analysis was run on the filtered groundwater sample for the following wells:

- BW-MW-2
- BW-MW-3
- BW-MW-4
- BW-MW-5
- BW-MW-7
- CF-MW-1
- CF-MW-2
- CF-MW-4
- CF-MW-11
- CF-MW-12

The dissolved mercury analysis was run on the filtered groundwater sample for the following wells:

- BW-MW-4
- BW-MW-8
- MW-10

In the filtered groundwater samples, four of the wells exceeded the arsenic GWQC, and none of the wells exceeded the mercury GWQC. The dissolved arsenic results at BW-MW-2, BW-MW-5, CF-MW-1, and CF-MW-2 exceeded the arsenic GWQC. This is the first instance of the filtered groundwater samples exceeding the GWQC in these wells during the OM&M program. Trends in COC concentrations will continue to be monitored for in future monitoring events. The groundwater results from 2012 continue to support the extent of the groundwater CEA for the Site.

2.5 Vertical Barrier Wall Effectiveness

The effectiveness of the vertical barrier wall (VBW) is to be evaluated by assessing the trends in the concentrations of mercury in groundwater monitoring wells installed immediately outside the barrier wall. According to the Developed Area RAW, the evaluation of the effectiveness of the vertical barrier wall will be performed between three and five years after installation of the monitoring wells (November 2010) around the vertical barrier wall, but at a minimum, prior to or during the first CERCLA five-year statutory review for the Ventron/Velsicol OU-1 Site. The first five-year review will be submitted March 10, 2014 which is five years from the start of undeveloped area construction. To date, a baseline sampling program consisting of the semi-annual collection and analysis of groundwater samples from the barrier wall wells has been conducted. The samples were collected using NJDEP's LFPS methods.

In addition, groundwater elevation data from piezometers inside the vertical barrier wall were monitored and these data provide an indication of the potential for overtopping of the barrier wall under the concrete cap that covers the area encompassed by the barrier wall.

Groundwater Elevations in Piezometers

Groundwater elevations were collected from the following eight piezometers at a minimum on a monthly basis:

- BW-PZ-1
- BW-PZ-2
- BW-PZ-3
- BW-PZ-4
- BW-PZ-5
- BW-PZ-6
- BW-PZ-7
- BW-PZ-8

Additional groundwater elevation levels were taken from the barrier wall piezometer when site maintenance activities, inspections, or containment water collection tank water disposal events occurred. The vertical barrier wall well and piezometer locations are presented in **Figure 4**. The barrier wall piezometer groundwater elevations are presented in **Table 4**. These groundwater elevations were compared to the top of the VBW elevations to evaluate the potential overtopping of the wall.

An overtopping evaluation was used to implement groundwater removal activities from within the wall as part of on-going maintenance. The groundwater removal maintenance activity consists of periodically pumping water from two containment water collection tanks that collect groundwater inside the barrier wall. Results of the groundwater elevation evaluation are presented in **Appendix D**.

On the western alignment of the VBW, groundwater elevations in the piezometers (inside of the wall) exceeded the elevations of the top of the VBW. In 24 of the 26 gauging events in 2012, groundwater elevations in the monitoring wells outside this portion of the VBW also exceeded the elevations of the top of the VBW. Groundwater elevations in the other portions of the VBW were below the top of the VBW throughout 2012. Based on groundwater elevations measured at the interior perimeter drain cleanouts locations, it is believed that the groundwater outside the western alignment of the VBW is mounding and not overtopping the VBW.

Starting in Quarter 4 of 2012, Parsons evaluated the hydraulic conditions around the VBW and the evaluation activities will continue into 2013. The three VBW evaluation actions at the Site are as follows:

1. Hydraulic Reaction Evaluation;
2. Obstruction Evaluation; and
3. Hydraulic Connection Evaluation.

The objective of the Hydraulic Reaction Evaluation is to evaluate the fill time for the storage tanks and how groundwater elevations within the VBW react to a condition where the storage tanks are continuously filling (i.e., when tank water levels are kept below the drain inlet) over

several months. Additionally, an evaluation of the flow rates from the northern/eastern perimeter drain and the western/southern perimeter drain was performed.

The objective of the Obstruction Evaluation is to evaluate if there were obstructions limiting flow in the western and southern interior perimeter drains. Parsons performed a video camera (push-style) inspection of the western and southern interior perimeter drain pipe sections to determine if there are signs of potential blockages (i.e., sediment plugs, nests) in the pipe (which consists of 4-inch diameter corrugated HDPE).

The objective of the Hydraulic Connection Evaluation is to determine if there is a hydraulic connection between the exterior and interior of the VBW western alignment by implementing a dye/tracer test.

The results of the hydraulic conditions evaluation will be presented in a separate report. Recommendations for additional investigations may be developed based on these evaluations.

Mercury Concentrations in Groundwater

Groundwater samples were collected from the following eight barrier wall wells between February 20 and February 23, 2012 (Quarter 1), May 15 and May 16, 2012 (Quarter 2), August 13, 2012 and August 16, 2012 (Quarter 3), and November 12 and 13, 2012 (Quarter 4) to build a baseline data set that will be used to determine, in the future, if there is a significant trend in total mercury concentration in the groundwater:

- BW-MW-1
- BW-MW-2
- BW-MW-3
- BW-MW-4
- BW-MW-5
- BW-MW-6
- BW-MW-7
- BW-MW-8

The barrier wall wells were analyzed for mercury only in Quarter 2 and Quarter 4. When CEA sampling coincided with barrier wall sampling, as in Quarter 1 and Quarter 3, the barrier wall wells were analyzed for arsenic, benzene, and mercury, the three Site-related COCs. However, for the purpose of barrier wall effectiveness, only the mercury results were considered. Results of the barrier wall sampling are presented in Table 5. For groundwater samples where mercury concentrations exceeded the Site-related GWQC, a dissolved mercury analysis was run on a filtered groundwater sample. Dissolved mercury analysis was run for the following wells:

Quarter 1:

- BM-MW-4
- BW-MW-8

Quarter 2:

- BW-MW-4
- BW-MW-8

Quarter 3:

- BW-MW-4
- BW-MW-8

Quarter 4:

- BW-MW-8

In the filtered groundwater samples, dissolved mercury results at one of the wells, BW-MW-8, exceeded the mercury GWQC. This is the first instance of the filtered groundwater sample exceeding the GWQC in this well during the OM&M program. Trends in mercury concentrations will continue to be monitored for in future monitoring events.

The VBW analytical results, total metal concentrations and/or the dissolved metal concentrations, if applicable, are presented in **Figure 4**. Trends in mercury concentrations (i.e., evaluation of the VBW effectiveness) will be evaluated after an equilibration period of three to five years after the installation of the barrier wall monitoring wells has elapsed. Therefore, between November 2013 and November 2015, the groundwater sampling results analysis at the barrier wall wells will be initiated using the Mann-Whitney U-Test or comparable statistical method to determine if mercury concentrations show a trend over time.

For each VBW groundwater sampling event, data validation was conducted on 50 percent of the groundwater samples submitted for analytical analysis in accordance with the current NJDEP validation SOPs, and USEPA Region 2 SOPs for Data Validation for the respective methods. The case narrative was reviewed for the other 50 percent of groundwater samples for any performance issues the laboratory reported. No data quality noncompliance issues were reported by the laboratory. The data usability report is included as **Appendix B**.

3.0 – OM&M for Engineering Controls

3.1 General Site Inspection

A general Site inspection was conducted on a quarterly basis on February 23, May 17, August 16, and November 13, 2012. This inspection evaluated general Site conditions, routine maintenance requirements, and Site security. The general Site inspection included a visual inspection of the condition of the fencing, gates, Site signs, access roads, stormwater control features, and erosion control measures. The Site inspection forms are included in **Appendix E**.

In 2012, housekeeping and access roads were in acceptable condition, and no maintenance was required. The perimeter chain-link fencing, gates and locks for the Ethel Boulevard property were in acceptable condition. The undeveloped area had appropriate signage. No maintenance to the Site security components was required. On May 17, 2012 (Quarter 2), a few minor housekeeping items related to trash removal were noted and were performed the next quarter. On August 16, 2012 (Quarter 3), the access road at the Site was extended 600 feet to the south to gain access to Berry's Creek for a separate project.

In addition, Hurricane Sandy impacted the Site on October 27 through 29, 2012 (Quarter 4). Heavy rainfall, flooding, and a storm surge resulted in significant water throughout the region. A full Site inspection was performed after the storm event on October 31 and November 1, 2012. The Site was not damaged as a result of the storm.

3.2 Developed Area Caps Inspection

The integrity of the various developed area caps was inspected on a quarterly basis. The undeveloped area cap was examined as part of the general Site inspections performed on February 23, May 17, August 16, and November 13, 2012.

Inspections have two objectives:

- Monitor any deterioration or cracking of the concrete cap surrounding the Wolf Warehouse and the foundation/floor of the Wolf Warehouse that would potentially allow for groundwater or vapor intrusion in the area; and
- Monitor general conditions of the various cap types to verify they were providing sufficient protection against direct contact of the underlying soils by potential receptors.

The following cap areas were inspected:

- Wolf Warehouse foundation, parking areas, and railroad siding;
- US Life Warehouse parking lots and railroad siding;
- EJB parking lots;
- Ethel Boulevard; and
- Norfolk Southern railroad spur.

In 2012, previously noted minor surface cracks were observed in the exterior concrete cap on the perimeter of Wolf Warehouse at several locations. These cracks appeared to be from stress and surficial in nature, and did not require maintenance during the inspections. Some cracks between

Wolf Warehouse and Ready Raw Warehouse had sealant placed in them during Quarter 1 of 2012, and were noted to be in good condition for the remainder of 2012.

In Quarter 3 of 2012, the Wolf Warehouse floor slab was inspected. This was the first time since the OM&M activities commenced in Quarter 1 of 2011 that Parsons had gained access to the Wolf Warehouse floor. Cracks previously identified in the November 2010 survey of the slab had not expanded and were not affecting the performance of the cap. Additional cracks were observed in the concrete adjacent to the roof pillars throughout the building as noted in the Site Inspection forms included as **Appendix E**. These cracks had not been previously identified, however they do not appear to have formed recently, and were not affecting the performance of the floor slab. These cracks will continue to be monitored. Access was not available to the Wolf Warehouse floor slab in Quarter 1, Quarter 2, or Quarter 4, 2012.

No new disturbances were observed at the EJB property asphalt and U.S. Life Warehouse properties. Previously noted potholes and surficial cracking were not affecting the performance of the asphalt paving, and do not require maintenance at this time. The other properties' caps inspected were in acceptable condition.

3.3 Undeveloped Area Cap Inspection

The undeveloped area cap was inspected on a quarterly basis as part of the general Site inspections performed on February 23, May 17, August 16, and November 13, 2012. The cap was inspected for the following conditions:

- Unauthorized vehicle or equipment traffic on the cap area;
- Erosion or excessive settlement;
- Burrowing or digging wildlife; and
- Undesirable vegetation.

No undeveloped area cap unauthorized vehicle traffic, or excessive settlement of the soil capping system was observed. On February 23, 2012 (Quarter 1), small areas near the Site storage box and gravel access road showed signs of disturbance, but had not expanded in subsequent 2012 inspections. No action was recommended due to the limited nature of the disturbance. During Quarter 2 and Quarter 3, burrowing wildlife was observed at the Site, however no animals burrows were located at the undeveloped area cap, and the integrity of the cap was not impacted. In Quarter 3, the existing gravel access road at the undeveloped area cap was extended approximately 600 feet in support of field activities for the Berry's Creek Study Area. On November 13, 2012 (Quarter 4), vegetation in the center of the property required reseeding. These areas will be reseeded in Spring 2013.

3.4 Vertical Hydraulic Barrier Wall Inspection

The vertical barrier wall was inspected on a monthly basis. The vertical barrier wall was regularly examined during containment water collection tank water disposal activities and as part of the general Site inspections performed on February 23, May 17, August 16, and November 13, 2012. The vertical barrier wall was inspected for the following conditions:

- Damage from vehicles or equipment crossing the barrier wall (i.e., broken surface pavement, subsidence, etc.);

- Excessive settlement; and
- Underground contaminant water collection tank level monitoring.

No damage to the vertical barrier wall from vehicle traffic or excessive settlement was observed. Water level measurements within the containment water collection tanks located within the barrier wall were performed. The amount of silt at the bottom of tanks continues to be monitored, and no silt removal is recommended at this time.

3.5 Erosion and Sediment Control Inspection

The erosion control permit requires Site inspections to be performed until vegetation is established. In 2012, the inspections were performed on at a reduced frequency based on discussion with Bergen County. Erosion and sediment control inspections were performed during Quarter 1 on January 10, February 7, February 23, and March 19, 2012. After Quarter 1, erosion and sediment control inspections were performed on a quarterly basis as part of the general site inspections on May 17, August 16, and November 13, 2012. SWPPP Erosion and Sedimentation Control forms are located in **Appendix F**.

Inspections included monitoring of culverts, swales and roof drain downspouts adjacent to the Wolf Warehouse railroad spur for buildup or blockage, inspection of pavement for signs of excessive ponding or improper drainage and inspection for signs of sediment migration.

The majority of the responses to the applicable SWPPP inspection sheet questions indicated the Site was in good condition and only minor maintenance and repairs were required.

In Quarter 1, sagging sections of the silt fence were repaired on January 10 and February 23, 2012. Broken fence stakes were repaired on February 23, 2012. On August 16, 2012 (Quarter 3), silt fence was removed from the Site. During Quarter 3 and Quarter 4, small areas across the Site were refurbished with topsoil, seed, and hay for stabilization.

3.6 West Ditch and 55-foot Buffer Inspection

The West Ditch and 55-foot buffer were monitored for excessive erosion, damage to the riprap, sediment buildup and vegetation growth (with focus on phragmites removal) on a quarterly basis and for habitation by burrowing animals twice per year. The inspection was performed as part of the undeveloped area cap inspections on February 23, May 17, August 16, and November 13, 2012.

In 2012, the West Ditch was in good condition and did not require any maintenance. The 55-foot buffer was stabilized with good vegetation growth. On May 17, 2012 (Quarter 2) and August 16, 2012 (Quarter 3), black laurels and phragmites were present on the 55-foot buffer. In October 2012, herbicide was applied to the invasive species, which were then manually removed. During Quarter 2 and Quarter 3, a groundhog and animals burrows were observed at the 55-foot buffer, however the integrity of the 55-foot buffer was not impacted. The burrows will continue to be monitored, and animal habitation observations will be recorded to determine long-term trends.

4.0 Biennial Certification

This annual report covers the biennial certification requirements by documenting the protectiveness of the remedial actions, which include both engineering and institutional controls, at the Site. The monitoring, reporting, and certification requirements for the Site are contained in the Site OM&M plan submitted on March 15, 2011. Specifically, Section 1.4 of the OM&M Plan requires submittal of a biennial certification report pursuant to NJDEP's Technical Requirements for Site Remediation (TRSR, N.J.A.C. 7:26E), however, the administrative requirements that guide the biennial certification process are now contained in the recently promulgated Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) rule, N.J.A.C. 7:26C. Thus, while the TRSR remains an applicable or relevant and appropriate requirement (ARAR) for the Site according to the Record of Decision (ROD), the requirements for biennial remedial action protectiveness certification are now contained in the ARRCS rule. This biennial remedial action protective certification follows the applicable requirements of the ARRCS rule.

This biennial remedial action protectiveness certification is provided for soil and groundwater, which encompasses the institutional and engineering controls that are part of the remedial action at the Site. The Remedial Action Protectiveness/Biennial Certification Forms for soil and ground water, and their respective supplements are included as **Appendix G**.

5.0 OM&M Activities to be Performed in 2013

The following OM&M activities for the ICs will be performed next year between January 1, 2013 and December 31, 2013:

- Deed Notices;
- Contaminant Flux Monitoring Program;
- Air Quality Monitoring in the Wolf Warehouse;
- CEA Sampling; and
- Vertical Barrier Wall Effectiveness.

The following OM&M activities for the ECs will be performed next year between January 1, 2013 and December 31, 2013:

- General Site Inspection;
- Developed Area Caps Inspection;
- Undeveloped Area Cap Inspection;
- Vertical Hydraulic Barrier Wall Inspection;
- Erosion and Sediment Control Inspection (as required by Bergen County);
- Storm water controls; and
- West Ditch and 55-foot Buffer Inspection.

6.0 Recommendations

- At this time, OM&M activities should continue as outlined in the OM&M Plan.
- Continue to develop the data set to allow monitoring of trends in contaminant flux, the CEA, and barrier wall COC concentrations in future groundwater sampling events.
- Continued investigation into the trends in groundwater elevations at the eight piezometer barrier wall locations and the hydraulic conditions around the VBW will occur in Quarter 1 of 2013.
- The level of silt at the bottom of containment water collection tanks should continue to be monitored; no silt removal is recommended at this time.
- Evaluate in spring 2013 the areas susceptible to erosion and/or ponding on the undeveloped area cap. Areas may require regrading or reseeded.
- Continue to monitor for animal burrows, and inspect the integrity of the engineering controls.

Tables

Table 1 - Log of Deed Notice Inspections
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

Quarter	Inspection Date	Deed Notice Properties								Comments/ Changes
		Wolf Warehouse Property	U.S. Life Warehouse Property	Undeveloped Area	Prince Packing Property	Blum Property	EJB	Ethel Boulevard	Norfolk Southern Property	
2011 Q1	3/15/2011	X	X	X	X	X	X	X	X	None
2011 Q2	6/30/2011	X	X	X	X	X	X	X	X	Surface drain repairs on north side of U.S. Life Warehouse
2011 Q3	9/20/2011	X	X	X	X	X	X	X	X	Surface disturbances near the office on Prince Packaging property
2011 Q4	12/2/2011	X	X	X	X	X	X	X	X	Work was recently conducted on rail spur in U.S. Life Warehouse. There were no impacts to the wells or cap. Undeveloped area locations showing signs of erosion were repaired.
2012 Q1	2/23/2012	X	X	X	X	X	X	X	X	None
2012 Q2	5/17/2012	X	X	X	X	X	X	X	X	None
2012 Q3	8/15/2012	X	X	X	X	X	X	X	X	On Ethel Boulevard, previously noted minor potholes in the road have been repaired. At the Prince Packaging property, new underground power lines and a power pole were in the process of being installed. The vertical extent of these excavations and whether unacceptable exposure to soil or groundwater contamination occurred is unknown.
2012 Q4	11/13/2012	X	X	X	X	X	X	X	X	None

Note:

X = Property was inspected in the indicated quarter

Table 2 - Contaminant Flux Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-1				CF-MW-3			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120221CFMW1V11.8N		20120813 CF-MW1V12.0N		20120221CFMW3V13.5N		20120814 CF-MW3V12.0N	
Lab Sample No.	PQLs and		460-00037096-003		460-43507-3		460-00037096-005		460-43507-7	
Sampling Date	GW Quality		2/21/2012		08/13/2012		2/21/2012		08/14/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.080 U		0.080 U		0.080 U		0.080 U	
METALS										
Total Arsenic	3	µg/L	4.4		26		4.7		1.8 U	
Arsenic, Dissolved	3	µg/L	2.9		27		5.1		NR	
Total Mercury	2	µg/L	0.16 U		0.16 U		0.16 U		0.16 U	
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

			CF-MW-2				CF-MW-4			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120222CFMW2V14.75N		20120813 CF-MW2V15.0N		20120221CFMW4V12.5N		20120814 CF-MW4V13.0N	
Lab Sample No.	PQLs and		460-00037169-001		460-43507-4		460-00037096-008		460-43507-8	
Sampling Date	GW Quality		2/22/2012		8/13/2012		2/21/2012		08/14/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.096 J		0.11 J		0.19 J		0.19 J	
METALS										
Total Arsenic	3	µg/L	4.0		10		1.8 U		16	
Arsenic, Dissolved	3	µg/L	2.6		9.1		NR		1.8 U	
Total Mercury	2	µg/L	0.16 U		0.16 U		0.16 U		0.16 U	
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 2 - Contaminant Flux Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-5				CF-MW-7			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120223CFMW5V13N		20120814 CF-MW5V13.0N		20120222CFMW7V14.5N		20120814CF-MW7V13.5N	
Lab Sample No.	PQLs and		460-00037210-004		460-43507-9		460-00037169-002		460-43655-2	
Sampling Date	GW Quality		2/23/2012		08/14/2012		2/22/2012		8/14/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.19	J	0.14	J	0.089	J	0.083	J
METALS										
Total Arsenic	3	µg/L	1.8	U	1.8	U	1.8	U	1.8	U
Arsenic, Dissolved	3	µg/L	NR		NR		NR		NR	
Total Mercury	2	µg/L	0.16	U	0.82		0.16	U	0.17	J
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

			CF-MW-6				CF-MW-8			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120223CFMW6V13.5N		20120814 CF-MW6V13.5N		20120223CFMW8V14N		20120814CF-MW8V14.0N	
Lab Sample No.	PQLs and		460-00037210-001		460-43507-10		460-00037210-002		460-43655-5	
Sampling Date	GW Quality		2/23/2012		08/14/2012		2/23/2012		8/15/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.12	J	0.080	U	2.0		1.9	
METALS										
Total Arsenic	3	µg/L	1.8	U	1.8	U	1.8	U	1.8	U
Arsenic, Dissolved	3	µg/L	NR		NR		NR		NR	
Total Mercury	2	µg/L	0.16	U	1.1		0.18	J	0.16	U
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

Notes:

Gray shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 2 - Contaminant Flux Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-9				CF-MW-11				
			Q1		Q3		Q1		Q3		
Sample ID	NJ Higher of		20120222CFMW9V14.25N		20120816CF-MW9V14.0N		20120222CFMW11V13N		20120815CF-MW11V12.0N		
Lab Sample No.	PQLs and		460-00037169-005		460-00037169-005		460-00037169-006		460-43655-3		
Sampling Date	GW Quality		2/22/2012		8/16/12		2/22/2012		8/15/2012		
Matrix	2005 Criteria		Water		Water		Water		Water		
VOCs											
Benzene	1	µg/L		3.8		3.6		0.13	J	0.23	J
METALS											
Total Arsenic	3	µg/L		1.8	U	2.0	J	1.8	U	4.7	
Arsenic, Dissolved	3	µg/L		NR		NR		NR		1.8	U
Total Mercury	2	µg/L		0.24		0.16	J	0.16	U	0.16	U
Mercury, Dissolved	2	µg/L		NR		NR		NR		NR	

			CF-MW-10				CF-MW-12				
			Q1		Q3		Q1		Q3		
Sample ID	NJ Higher of		20120222CFMW10V12.5N		20120814CF-MW10V14.0N		20120222CFMW12V9.5N		20120815CF-MW12V13.0N		
Lab Sample No.	PQLs and		460-00037169-003		460-43655-1		460-00037169-004		460-43655-4		
Sampling Date	GW Quality		2/22/2012		8/14/2012		2/22/2012		8/15/2012		
Matrix	2005 Criteria		Water		Water		Water		Water		
VOCs											
Benzene	1	µg/L		0.080	U	0.080	U	0.080	U	0.080	U
METALS											
Total Arsenic	3	µg/L		1.8	U	2.7		0.36	U	4.3	
Arsenic, Dissolved	3	µg/L		NR		NR		NR		1.8	U
Total Mercury	2	µg/L		0.16	U	0.35		0.16	U	0.16	U
Mercury, Dissolved	2	µg/L		NR		NR		NR		NR	

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			BW-MW-1				BW-MW-3			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120223BWMW1V7.5N		20120816BW-MW1V9.0N		20120220BWMW3V13.7N		20120816BW-MW3V12.0N	
Lab Sample No.	PQLs and		460-24264-5		460-24264-5		460-24087-2		460-24087-2	
Sampling Date	GW Quality		2/23/12		8/16/12		2/20/12		8/16/12	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.2	J	0.77	J	0.28	J	0.59	J
METALS										
Total Arsenic	3	µg/L	1.8	U	1.8	U	5.1		10	
Arsenic, Dissolved	3	µg/L	NR		NR		1.8	U	1.8	J
Total Mercury	2	µg/L	1.9		1.9		0.25		1.1	
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

			BW-MW-2				BW-MW-4			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120221BWMW2V7N		20120816BW-MW2V8.0N		20120220BWMW4V12.75N		20120816BW-MW4V14.0N	
Lab Sample No.	PQLs and		460-24087-5		460-24087-5		460-24309-4		460-24309-4	
Sampling Date	GW Quality		2/21/12		8/16/12		2/20/12		8/16/12	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.27	J	0.72	J	5.7		5.9	
METALS										
Total Arsenic	3	µg/L	7.8		8.8		7.1		8.2	
Arsenic, Dissolved	3	µg/L	1.8	U	4.4		1.8	U	2.3	J
Total Mercury	2	µg/L	0.54		0.16	U	4.3		5.2	
Mercury, Dissolved	2	µg/L	NR		NR		0.44		1.8	

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

				BW-MW-5				BW-MW-7				
				Q1		Q3		Q1		Q3		
Sample ID	NJ Higher of			20120221BWMW5V11.75N		20120813 BW-MW5V13.0N		20120221BWMW7V7N		20120813 BW-MW7V8.0N		
Lab Sample No.	PQLs and			460-24309-5		460-43507-2		460-24264-1		460-43507-1		
Sampling Date	GW Quality			2/21/12		8/13/2012		2/21/12		8/13/2012		
Matrix	2005 Criteria			Water		Water		Water		Water		
VOCs												
Benzene	1	µg/L		0.29	J		1.0		0.77	J	0.78	J
METALS												
Total Arsenic	3	µg/L		2.2	J		8.3		4.9		6.6	
Arsenic, Dissolved	3	µg/L		NR			4.9		1.8	U	1.8	U
Total Mercury	2	µg/L		0.16	U		0.25		0.16	U	0.37	
Mercury, Dissolved	2	µg/L		NR			NR		NR		NR	

				BW-MW-6				BW-MW-8					
				Q1		Q3		Q1		Q3			
Sample ID	NJ Higher of			20120223BWMW6V9N		20120815BW-MW6V9.0N		20120223BWMW8V7N		20120816BW-MW8V8.0N			
Lab Sample No.	PQLs and			460-24309-7		460-43655-7		460-24264-2		460-24264-2			
Sampling Date	GW Quality			2/23/12		8/15/2012		2/23/12		8/16/12			
Matrix	2005 Criteria			Water		Water		Water		Water			
VOCs													
Benzene	1	µg/L		0.56	J		0.22	J		0.62	J	0.37	J
METALS													
Total Arsenic	3	µg/L		3.7			1.8	U		6.6		3.0	
Arsenic, Dissolved	3	µg/L		1.8	U		NR		1.8	U		NR	
Total Mercury	2	µg/L		0.23			0.68		16		19		
Mercury, Dissolved	2	µg/L		NR			NR		0.67		0.67		

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

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J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-1		CF-MW-3	
			Q1	Q3	Q1	Q3
Sample ID	NJ Higher of		20120221CFMW1V11.8N	20120813 CF-MW1V12.0N	20120221CFMW3V13.5N	20120814 CF-MW3V12.0N
Lab Sample No.	PQLs and		460-00037096-003	460-43507-3	460-00037096-005	460-43507-7
Sampling Date	GW Quality		2/21/2012	08/13/2012	2/21/2012	08/14/2012
Matrix	2005 Criteria		Water	Water	Water	Water
VOCs						
Benzene	1	µg/L	0.080 U	0.080 U	0.080 U	0.080 U
METALS						
Total Arsenic	3	µg/L	4.4	26	4.7	1.8 U
Arsenic, Dissolved	3	µg/L	2.9	27	5.1	NR
Total Mercury	2	µg/L	0.16 U	0.16 U	0.16 U	0.16 U
Mercury, Dissolved	2	µg/L	NR	NR	NR	NR

			CF-MW-2		CF-MW-4	
			Q1	Q3	Q1	Q3
Sample ID	NJ Higher of		20120222CFMW2V14.75N	20120813 CF-MW2V15.0N	20120221CFMW4V12.5N	20120814 CF-MW4V13.0N
Lab Sample No.	PQLs and		460-00037169-001	460-43507-4	460-00037096-008	460-43507-8
Sampling Date	GW Quality		2/22/2012	8/13/2012	2/21/2012	08/14/2012
Matrix	2005 Criteria		Water	Water	Water	Water
VOCs						
Benzene	1	µg/L	0.098 J	0.11 J	0.18 J	0.19 J
METALS						
Total Arsenic	3	µg/L	4.0	10	1.8 U	1.8 U
Arsenic, Dissolved	3	µg/L	2.6	9.1	NR	1.8 U
Total Mercury	2	µg/L	0.16 U	0.16 U	0.16 U	0.16 U
Mercury, Dissolved	2	µg/L	NR	NR	NR	NR

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-5				CF-MW-7			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120223CFMW5V13N		20120814 CF-MW5V13.0N		20120222CFMW7V14.5N		20120814CF-MW7V13.5N	
Lab Sample No.	PQLs and		460-00037210-004		460-43507-9		460-00037169-002		460-43655-2	
Sampling Date	GW Quality		2/23/2012		08/14/2012		2/22/2012		8/14/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.19	J	0.14	J	0.089	J	0.083	J
METALS										
Total Arsenic	3	µg/L	1.8	U	1.8	U	1.8	U	1.8	U
Arsenic, Dissolved	3	µg/L	NR		NR		NR		NR	
Total Mercury	2	µg/L	0.16	U	0.82		0.16	U	0.17	J
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

			CF-MW-6				CF-MW-8			
			Q1		Q3		Q1		Q3	
Sample ID	NJ Higher of		20120223CFMW6V13.5N		20120814 CF-MW6V13.5N		20120223CFMW8V14N		20120814CF-MW8V14.0N	
Lab Sample No.	PQLs and		460-00037210-001		460-43507-10		460-00037210-002		460-43655-5	
Sampling Date	GW Quality		2/23/2012		08/14/2012		2/23/2012		8/15/2012	
Matrix	2005 Criteria		Water		Water		Water		Water	
VOCs										
Benzene	1	µg/L	0.12	J	0.080	U	2.0		1.9	
METALS										
Total Arsenic	3	µg/L	1.8	U	1.8	U	1.8	U	1.8	U
Arsenic, Dissolved	3	µg/L	NR		NR		NR		NR	
Total Mercury	2	µg/L	0.16	U	1.1		0.18	J	0.16	U
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR	

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			CF-MW-9		CF-MW-11	
			Q1	Q3	Q1	Q3
Sample ID	NJ Higher of		20120222CFMW9V14.25N	20120816CF-MW9V14.0N	20120222CFMW11V13N	20120815CF-MW11V12.0N
Lab Sample No.	PQLs and		460-00037169-005	460-00037169-005	460-00037169-006	460-43655-3
Sampling Date	GW Quality		2/22/2012	8/16/12	2/22/2012	8/15/2012
Matrix	2005 Criteria		Water	Water	Water	Water
VOCs						
Benzene	1	µg/L	3.8	3.8	0.13 J	0.23 J
METALS						
Total Arsenic	3	µg/L	1.8 U	2.0 J	1.8 U	4.7
Arsenic, Dissolved	3	µg/L	NR	NR	NR	1.8 U
Total Mercury	2	µg/L	0.24	0.16 J	0.16 U	0.16 U
Mercury, Dissolved	2	µg/L	NR	NR	NR	NR

			CF-MW-10		CF-MW-12	
			Q1	Q3	Q1	Q3
Sample ID	NJ Higher of		20120222CFMW10V12.5N	20120814CF-MW10V14.0N	20120222CFMW12V9.5N	20120815CF-MW12V13.0N
Lab Sample No.	PQLs and		460-00037169-003	460-43655-1	460-00037169-004	460-43655-4
Sampling Date	GW Quality		2/22/2012	8/14/2012	2/22/2012	8/15/2012
Matrix	2005 Criteria		Water	Water	Water	Water
VOCs						
Benzene	1	µg/L	0.080 U	0.080 U	0.080 U	0.080 U
METALS						
Total Arsenic	3	µg/L	1.8 U	2.7	0.36 U	4.3
Arsenic, Dissolved	3	µg/L	NR	NR	NR	1.8 U
Total Mercury	2	µg/L	0.16 U	0.35	0.16 U	0.16 U
Mercury, Dissolved	2	µg/L	NR	NR	NR	NR

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 3- CEA Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

			MW-10			
			Q1		Q3	
Sample ID	NJ Higher of		20120223MW10V8N		20120816MW-10V6.0N	
Lab Sample No.	PQLs and		460-00037210-007		460-00037210-007	
Sampling Date	GW Quality		2/23/2012		8/16/12	
Matrix	2005 Criteria		Water		Water	
VOCs						
Benzene	1	µg/L	0.080	U	0.080	U
METALS						
Total Arsenic	3	µg/L	1.8	U	1.8	U
Arsenic, Dissolved	3	µg/L	NR		NR	
Total Mercury	2	µg/L	6.7		13	
Mercury, Dissolved	2	µg/L	0.18	U	0.18	U

			MW-11			
			Q1		Q3	
Sample ID	NJ Higher of		20120222CFMW11V13N		20120816-MW11V12.0N	
Lab Sample No.	PQLs and		460-00037169-006		460-00037169-006	
Sampling Date	GW Quality		2/22/2012		8/16/12	
Matrix	2005 Criteria		Water		Water	
VOCs						
Benzene	1	µg/L	0.13	J	0.080	U
METALS						
Total Arsenic	3	µg/L	3.6		2.7	
Arsenic, Dissolved	3	µg/L	1.8	U	NR	
Total Mercury	2	µg/L	0.72		0.33	
Mercury, Dissolved	2	µg/L	NR		NR	

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					1/3/2012			1/10/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	2.02	3.39	1.31	3.42	3.42	1.28
BW-MW-1	731232.48	608859.01	5.82		1.93	3.69		3.36	3.36	
BW-PZ-2	731122.20	608785.03	5.82	4.99	2.29	3.33	1.66	3.46	3.46	1.53
BW-MW-2	731132.11	608792.88	5.83		2.12	3.71		3.30	3.30	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.12	3.17	2.07	3.33	3.33	1.91
BW-MW-3	730985.97	608838.74	10.77		7.87	3.10		2.96	2.96	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.98	3.25	1.82	3.38	3.38	1.69
BW-MW-4	730852.99	608741.21	10.69		7.47	3.22		2.85	2.85	
BW-PZ-5	730876.54	608598.12	4.87	3.95	1.44	3.23	0.72	3.32	3.32	0.63
BW-MW-5	730824.35	608557.61	12.18		8.68	3.50		3.43	3.43	
BW-PZ-6	730958.18	608488.71	4.41	3.90	1.23	3.18	0.72	3.19	3.19	0.71
BW-MW-6	730904.66	608479.73	8.95		5.45	3.50		3.45	3.45	
BW-PZ-7	731069.53	608451.84	4.80	3.13	1.25	3.55	-0.43	3.62	3.62	-0.50
BW-MW-7	731088.88	608429.05	4.89		0.25	4.84		4.56	4.56	
BW-PZ-8	731220.67	608584.35	5.11	3.71	1.52	3.59	0.12	3.81	3.81	0.10
BW-MW-8	731238.98	608540.79	5.02		0.71	4.31		4.11	4.11	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of well) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					2/7/2012			3/19/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0)	NGVD 1929	FT	FTOC (0.0)	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	1.81	3.60	1.10	1.99	3.42	1.28
BW-MW-1	731232.48	608859.01	5.62		2.19	3.43		2.56	3.06	
BW-PZ-2	731122.20	608785.03	5.62	4.99	1.99	3.63	1.36	2.25	3.37	1.62
BW-MW-2	731132.11	608792.88	5.83		2.35	3.48		2.80	3.03	
BW-PZ-3	731025.82	608790.21	5.29	5.24	1.75	3.54	1.70	2.2	3.09	2.15
BW-MW-3	730985.97	608838.74	10.77		7.75	3.02		7.86	2.91	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.64	3.59	1.48	2.45	2.78	2.29
BW-MW-4	730852.99	608741.21	10.69		7.51	3.18		7.54	3.15	
BW-PZ-5	730878.54	608596.12	4.67	3.95	1.30	3.37	0.68	1.41	3.28	0.69
BW-MW-5	730824.35	608557.81	12.18		8.78	3.40		8.83	3.35	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.10	3.31	0.69	1.25	3.16	0.74
BW-MW-6	730904.66	608479.73	8.95		5.49	3.46		5.55	3.40	
BW-PZ-7	731089.53	608451.64	4.80	3.13	1.15	3.65	-0.53	1.29	3.51	-0.39
BW-MW-7	731086.88	608429.05	4.88		0.35	4.54		0.58	4.31	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.38	3.73	-0.02	1.59	3.52	0.19
BW-MW-8	731236.88	608540.79	5.02		0.85	4.17		1.1	3.92	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					4/26/2012			5/15/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0)	NGVD 1929	FT	FTOC (0.0)	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	1.81	3.60	1.10	1.64	3.77	0.93
BW-MW-1	731232.48	608858.01	5.82		1.97	3.85		2.01	3.61	
BW-PZ-2	731122.20	608785.03	5.82	4.09	2.1	3.52	1.47	1.81	3.81	1.18
BW-MW-2	731132.11	608782.88	5.83		2.15	3.68		2.50	3.33	
BW-PZ-3	731025.82	608790.21	5.29	5.24	1.85	3.44	1.80	1.55	3.74	1.50
BW-MW-3	730985.97	608838.74	10.77		7.88	3.11		7.58	3.21	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.73	3.50	1.57	1.45	3.78	1.29
BW-MW-4	730852.99	608741.21	10.69		7.49	3.20		7.30	3.39	
BW-PZ-5	730876.54	608598.12	4.67	3.95	1.2	3.47	0.48	0.88	3.79	0.16
BW-MW-5	730824.35	608557.61	12.18		8.93	3.25		8.38	3.82	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.23	3.18	0.72	0.78	3.63	0.27
BW-MW-6	730804.68	608479.73	8.95		5.55	3.40		5.13	3.82	
BW-PZ-7	731089.53	608451.64	4.80	3.13	1.10	3.70	-0.58	0.88	3.92	-0.80
BW-MW-7	731088.88	608429.05	4.89		0.35	4.54		0.17	4.72	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.4	3.71	0.00	1.19	3.92	-0.21
BW-MW-8	731238.98	608540.79	5.02		0.79	4.23		0.77	4.25	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot..

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					5/31/2012			8/5/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0)	NGVD 1929	FT	FTOC (0.0)	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	1.46	3.95	0.75	1.75	3.68	1.04
BW-MW-1	731232.48	608859.01	5.62		2.11	3.51		1.59	4.03	
BW-PZ-2	731122.20	608785.03	5.62	4.99	1.58	4.04	0.95	2.01	3.61	1.38
BW-MW-2	731132.11	608792.88	5.83		1.28	4.57		1.81	4.02	
BW-PZ-3	731025.82	608790.21	5.29	5.24	1.48	3.83	1.41	1.75	3.54	1.70
BW-MW-3	730985.97	608838.74	10.77		7.6	3.17		7.48	3.29	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.25	3.88	1.09	1.72	3.51	1.56
BW-MW-4	730852.99	608741.21	10.69		7.18	3.51		7.25	3.44	
BW-PZ-5	730878.54	608596.12	4.67	3.95	0.78	3.91	0.04	1.17	3.50	0.45
BW-MW-5	730824.35	608557.81	12.18		8.65	3.53		8.55	3.83	
BW-PZ-6	730958.19	608486.71	4.41	3.90	0.72	3.89	0.21	0.63	3.78	0.12
BW-MW-6	730904.66	608479.73	8.95		5.43	3.52		5.33	3.62	
BW-PZ-7	731089.53	608451.64	4.80	3.13	0.72	4.08	-0.96	0.95	3.85	-0.73
BW-MW-7	731086.88	608429.05	4.89		0.32	4.57		0.19	4.70	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.07	4.04	-0.33	1.32	3.79	-0.08
BW-MW-8	731236.98	608540.79	5.02		0.88	4.14		0.63	4.39	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					6/7/2012			6/13/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	1.95	3.46	1.24	1.98	3.43	1.27
BW-MW-1	731232.46	608659.01	5.62		1.62	3.80		2.02	3.60	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.24	3.38	1.61	2.17	3.45	1.54
BW-MW-2	731132.11	608792.88	5.83		1.99	3.84		2.31	3.52	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.38	2.93	2.31	2.05	3.24	2.00
BW-MW-3	730885.97	608838.74	10.77		7.51	3.28		7.55	3.22	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.51	2.72	2.35	2.02	3.21	1.88
BW-MW-4	730852.99	608741.21	10.69		7.24	3.45		7.28	3.41	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.41	3.26	0.69	1.31	3.38	0.59
BW-MW-5	730824.38	608557.81	12.18		8.61	3.57		8.66	3.52	
BW-PZ-6	730958.19	608486.71	4.41	3.90	0.71	3.70	0.20	1.08	3.33	0.57
BW-MW-6	730904.68	608479.73	8.95		5.42	3.53		5.31	3.64	
BW-PZ-7	731069.83	608451.64	4.80	3.13	1.21	3.59	-0.47	1.17	3.63	-0.51
BW-MW-7	731088.88	608429.05	4.89		0.25	4.64		0.35	4.54	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.51	3.60	0.11	1.49	3.62	0.09
BW-MW-8	731236.98	608540.79	5.02		0.72	4.30		0.85	4.17	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the wall protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					7/5/2012			7/26/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	1.99	3.42	1.28	2.11	3.30	1.40
BW-MW-1	731232.46	608659.01	5.62		2.99	2.63		3.37	2.25	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.13	3.49	1.50	2.3	3.32	1.67
BW-MW-2	731132.11	608792.88	5.83		3.25	2.58		3.61	2.22	
BW-PZ-3	731025.82	608790.21	5.29	5.24	1.88	3.41	1.83	2.11	3.18	2.06
BW-MW-3	730985.97	608838.74	10.77		7.94	2.83		8.17	2.60	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.85	3.38	1.69	2.07	3.16	1.91
BW-MW-4	730852.99	608741.21	10.69		7.48	3.21		7.69	3.00	
BW-PZ-5	730876.54	608596.12	4.87	3.95	1.34	3.33	0.62	1.38	3.29	0.66
BW-MW-5	730824.35	608557.61	12.16		8.93	3.25		9.08	3.10	
BW-PZ-6	730958.19	608486.71	4.41	3.90	1.02	3.39	0.51	1.12	3.29	0.61
BW-MW-6	730904.66	608478.73	8.95		5.69	3.26		5.86	3.09	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.30	3.50	-0.38	1.42	3.38	-0.26
BW-MW-7	731068.88	608428.05	4.89		0.94	3.95		1.09	3.80	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.59	3.52	0.19	1.73	3.38	0.33
BW-MW-8	731236.98	608540.79	5.02		1.5	3.52		1.7	3.32	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					8/13/2012			10/11/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	2.05	3.36	1.34	2.38	3.03	1.67
BW-MW-1	731232.48	608659.01	5.82		3.21	2.41		3.48	2.14	
BW-PZ-2	731122.20	608765.03	5.62	4.99	2.2	3.42	1.67	2.78	2.84	2.15
BW-MW-2	731132.11	608792.88	5.83		3.40	2.43		3.73	2.10	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2	3.29	1.95	2.62	2.67	2.57
BW-MW-3	730985.97	608838.74	10.77		8.14	2.63		8.62	2.15	
BW-PZ-4	730883.74	608700.33	5.23	5.08	1.85	3.38	1.69	2.72	2.81	2.58
BW-MW-4	730852.99	608741.21	10.69		7.79	2.90		8.20	2.49	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.3	3.37	0.58	1.9	2.77	1.18
BW-MW-5	730824.35	608557.61	12.18		9.00	3.18		9.12	3.08	
BW-PZ-6	730958.19	608486.71	4.41	3.90	1.2	3.21	0.69	0.99	3.42	0.48
BW-MW-6	730904.66	608479.73	8.95		5.61	3.14		5.93	3.02	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.40	3.40	-0.28	1.72	3.08	0.04
BW-MW-7	731086.88	608429.05	4.89		0.92	3.97		1.25	3.64	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.64	3.47	0.24	2.03	3.08	0.63
BW-MW-8	731236.98	608540.79	5.02		1.51	3.51		1.86	3.16	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					10/25/2012			10/31/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	2.33	3.08	1.62	1.82	3.59	1.11
BW-MW-1	731232.48	608859.01	5.62		3.30	2.32		1.38	4.26	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.78	2.84	2.15	2.14	3.48	1.51
BW-MW-2	731132.11	608792.88	5.83		3.51	2.32		1.50	4.33	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.65	2.84	2.60	2.16	3.13	2.11
BW-MW-3	730985.97	608838.74	10.77		8.5	2.27		7.27	3.50	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.7	2.53	2.54	2.21	3.02	2.05
BW-MW-4	730852.99	608741.21	10.69		8.21	2.48		7.48	3.21	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.83	2.84	1.11	1.3	3.37	0.58
BW-MW-5	730824.35	608557.81	12.18		9.07	3.11		8.40	3.78	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.03	3.38	0.52	1.11	3.30	0.60
BW-MW-6	730904.68	608479.73	8.95		5.77	3.18		5.14	3.81	
BW-PZ-7	731069.53	608451.84	4.80	3.13	1.70	3.10	0.02	1.10	3.76	-0.58
BW-MW-7	731086.88	608429.05	4.89		1.08	3.83		0.00	4.89	
BW-PZ-8	731220.67	608584.35	5.11	3.71	2.01	3.10	0.61	1.4	3.71	0.00
BW-MW-8	731238.88	608540.79	5.02		1.65	3.37		0.25	4.77	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
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Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					11/1/2012			11/14/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	1.91	3.50	1.20	2.02	3.39	1.31
BW-MW-1	731232.48	608659.01	5.82		1.41	4.21		2.04	3.58	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.2	3.42	1.57	2.41	3.21	1.78
BW-MW-2	731132.11	608792.88	5.83		1.58	4.27		2.18	3.65	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.3	2.98	2.25	2.51	2.78	2.46
BW-MW-3	730885.97	608838.74	10.77		7.35	3.42		7.84	2.93	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.49	2.74	2.33	2.81	2.82	2.45
BW-MW-4	730852.99	608741.21	10.69		7.38	3.31		7.81	2.88	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.32	3.35	0.60	1.51	3.16	0.79
BW-MW-5	730824.35	608557.81	12.18		8.44	3.74		8.66	3.52	
BW-PZ-6	730656.19	608488.71	4.41	3.90	1.13	3.28	0.62	1.27	3.14	0.76
BW-MW-6	730904.66	608479.73	8.95		5.28	3.67		5.42	3.53	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.11	3.69	-0.57	1.31	3.49	-0.37
BW-MW-7	731086.88	608429.05	4.89		0.05	4.84		0.40	4.49	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.44	3.67	0.04	1.57	3.54	0.17
BW-MW-8	731236.68	608540.70	5.02		0.4	4.62		0.81	4.21	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot..

Table 4 - Barrier Wall Groundwater Level Measurements
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OU-1 Vertical Barrier Wall Groundwater Monitoring					11/18/2012			11/20/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.83	608651.47	5.41	4.70	2	3.41	1.29	2.01	3.40	1.30
BW-MW-1	731232.48	608658.01	5.82		2.30	3.32		2.29	3.33	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.4	3.22	1.77	2.39	3.23	1.78
BW-MW-2	731132.11	608792.88	5.83		2.49	3.34		2.45	3.38	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.4	2.89	2.35	2.41	2.88	2.36
BW-MW-3	730985.97	608838.74	10.77		7.81	2.96		7.79	2.98	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.52	2.71	2.38	2.57	2.68	2.41
BW-MW-4	730852.99	608741.21	10.69		7.64	3.05		7.60	3.09	
BW-PZ-5	730878.54	608596.12	4.67	3.95	1.6	3.07	0.88	1.56	3.11	0.84
BW-MW-5	730824.35	608557.81	12.18		8.77	3.41		8.75	3.43	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.35	3.06	0.84	1.29	3.12	0.78
BW-MW-6	730904.68	608479.73	8.95		5.54	3.41		5.44	3.51	
BW-PZ-7	731069.53	608451.84	4.80	3.13	1.38	3.42	-0.30	1.32	3.48	-0.36
BW-MW-7	731088.68	608429.05	4.88		0.50	4.39		0.50	4.39	
BW-PZ-8	731220.67	608584.35	5.11	3.71	1.6	3.51	0.20	1.6	3.51	0.20
BW-MW-8	731236.88	608540.79	5.02		1	4.02		0.95	4.07	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of well) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

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Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					11/26/2012			11/27/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	2.15	3.26	1.44	2.19	3.22	1.48
BW-MW-1	731232.48	608859.01	5.82		2.78	2.84		2.89	2.73	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.6	3.02	1.97	2.61	3.01	1.98
BW-MW-2	731132.11	608792.88	5.83		2.95	2.88		3.05	2.78	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.58	2.71	2.53	2.58	2.73	2.51
BW-MW-3	730985.97	608838.74	10.77		8.1	2.67		8.12	2.65	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.68	2.55	2.52	2.65	2.58	2.49
BW-MW-4	730852.99	608741.21	10.69		7.94	2.75		8.04	2.65	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.7	2.97	0.98	1.68	2.99	0.96
BW-MW-5	730824.35	608557.61	12.18		8.84	3.24		9.00	3.18	
BW-PZ-6	730958.19	608486.71	4.41	3.90	1.44	2.97	0.93	1.41	3.00	0.90
BW-MW-6	730904.66	608479.73	8.95		5.63	3.32		5.65	3.30	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.49	3.31	-0.19	1.47	3.33	-0.21
BW-MW-7	731086.88	608429.05	4.89		0.65	4.24		0.71	4.18	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.78	3.33	0.38	1.78	3.33	0.38
BW-MW-8	731236.98	608540.79	5.02		1.25	3.77		1.28	3.74	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

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Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					11/29/2012			12/4/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0)	NGVD 1929	FT	FTOC (0.0)	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	2.07	3.34	1.36	2.08	3.33	1.37
BW-MW-1	731232.46	608659.01	5.62		2.30	3.32		2.44	3.18	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.54	3.08	1.91	2.43	3.19	1.80
BW-MW-2	731132.11	608792.88	5.83		2.47	3.36		2.65	3.18	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.51	2.78	2.46	2.45	2.84	2.40
BW-MW-3	730685.97	608638.74	10.77		7.95	2.82		7.96	2.81	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.6	2.63	2.44	2.55	2.68	2.39
BW-MW-4	730852.98	608741.21	10.69		7.70	2.99		7.70	2.99	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.68	3.01	0.94	1.63	3.04	0.91
BW-MW-5	730624.38	608557.81	12.18		8.68	3.50		8.77	3.41	
BW-PZ-6	730956.19	608486.71	4.41	3.90	1.4	3.01	0.89	1.35	3.06	0.84
BW-MW-6	730904.66	608479.73	8.95		5.47	3.48		5.38	3.57	
BW-PZ-7	731089.53	608451.64	4.60	3.13	1.40	3.40	-0.28	1.37	3.43	-0.31
BW-MW-7	731086.88	608429.05	4.89		0.48	4.41		0.45	4.44	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.67	3.44	0.27	1.63	3.48	0.23
BW-MW-8	731236.98	608540.79	5.02		1	4.02		1.04	3.98	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

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OU-1 Vertical Barrier Wall Groundwater Monitoring					12/7/2012			12/11/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41		2.04	3.37		2.04	3.37	
BW-MW-1	731232.46	608859.01	5.62	4.70	2.64	2.98	1.33	1.94	3.88	1.33
BW-PZ-2	731122.20	608785.03	5.62		2.47	3.15		2.41	3.21	
BW-MW-2	731132.11	608792.88	5.83	4.99	2.86	2.97	1.84	2.12	3.71	1.78
BW-PZ-3	731025.82	608790.21	5.29		2.45	2.84		2.46	2.83	
BW-MW-3	730985.87	608838.74	10.77	5.24	8.05	2.72	2.40	7.87	3.10	2.41
BW-PZ-4	730883.74	608700.33	5.23		2.56	2.87		2.62	2.61	
BW-MW-4	730852.99	608741.21	10.69	5.08	7.80	2.89	2.40	7.65	3.04	2.46
BW-PZ-5	730876.54	608598.12	4.67		1.58	3.09		1.54	3.13	
BW-MW-5	730824.35	608557.61	12.18	3.95	8.85	3.33	0.86	8.41	3.77	0.82
BW-PZ-6	730958.19	608486.71	4.41		1.35	3.06		1.22	3.19	
BW-MW-6	730904.66	608479.73	8.95	3.90	5.50	3.45	0.84	5.14	3.81	0.71
BW-PZ-7	731069.53	608451.64	4.80		1.35	3.45		1.31	3.49	
BW-MW-7	731086.88	608429.05	4.89	3.13	0.55	4.34	-0.33	0.18	4.71	-0.37
BW-PZ-8	731220.67	608584.35	5.11		1.65	3.46		1.59	3.52	
BW-MW-8	731236.88	608540.79	5.02	3.71	1.05	3.97	0.25	0.81	4.21	0.19

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

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Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					12/14/2012			12/18/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	2	3.41	1.29	1.93	3.48	1.22
BW-MW-1	731232.48	608659.01	5.62		2.15	3.47		1.56	4.06	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.42	3.20	1.79	2.24	3.38	1.61
BW-MW-2	731132.11	608792.88	5.83		2.38	3.47		1.79	4.07	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.4	2.89	2.35	2.21	3.08	2.18
BW-MW-3	730885.97	608838.74	10.77		7.88	2.89		7.19	3.58	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.5	2.73	2.34	2.51	2.72	2.35
BW-MW-4	730852.99	608741.21	10.89		7.65	3.04		7.24	3.45	
BW-PZ-5	730878.54	608598.12	4.67	3.95	1.51	3.16	0.79	1.52	3.15	0.80
BW-MW-5	730824.35	608557.81	12.18		8.45	3.73		8.31	3.87	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.25	3.18	0.74	1.31	3.10	0.80
BW-MW-6	730904.68	608479.73	8.95		5.35	3.80		4.85	4.10	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.27	3.53	-0.41	1.16	3.84	-0.52
BW-MW-7	731068.88	608429.05	4.89		0.33	4.58		0.00	4.89	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.55	3.56	0.15	1.41	3.70	0.01
BW-MW-8	731236.98	608540.79	5.02		1.04	3.98		0.57	4.45	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
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OU-1 Vertical Barrier Wall Groundwater Monitoring					12/22/2012			12/26/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608651.47	5.41	4.70	1.99	3.42	1.28	1.98	3.45	1.25
BW-MW-1	731232.46	608659.01	5.62		1.26	4.36		1.71	3.91	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.31	3.31	1.68	2.45	3.17	1.82
BW-MW-2	731132.11	608792.88	5.83		1.42	4.41		1.88	3.95	
BW-PZ-3	731025.62	608790.21	5.29	5.24	2.45	2.84	2.40	2.47	2.82	2.42
BW-MW-3	730885.97	608838.74	10.77		7.31	3.46		7.67	3.10	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.6	2.63	2.44	2.66	2.67	2.40
BW-MW-4	730852.99	608741.21	10.69		7.35	3.34		8.62	2.07	
BW-PZ-5	730876.54	608596.12	4.67	3.95	1.65	3.02	0.93	1.51	3.16	0.79
BW-MW-5	730824.35	608557.81	12.18		8.29	3.89		8.40	3.78	
BW-PZ-6	730656.19	608466.71	4.41	3.90	1.35	3.06	0.84	1.32	3.09	0.81
BW-MW-6	730604.66	608479.73	8.95		5.09	3.66		5.33	3.62	
BW-PZ-7	731069.53	608451.64	4.80	3.13	1.21	3.59	-0.47	1.25	3.55	-0.43
BW-MW-7	731066.88	608429.05	4.89		0.00	4.89		0.15	4.74	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.45	3.66	0.05	1.53	3.58	0.13
BW-MW-8	731236.98	608540.79	5.02		0.4	4.62		0.5	4.52	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the wall protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 4 - Barrier Wall Groundwater Level Measurements
OM&M 2012 Annual Report
Ventron/Velsicol Superfund Site Operable Unit One
Wood-Ridge, NJ

OU-1 Vertical Barrier Wall Groundwater Monitoring					12/28/2012			12/31/2012		
Monitoring Well I.D.	Northing	Easting	Survey Top of Casing Elev. ¹	Approx Top of VBW Elev.	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW	Measured Depth to Gw Table (FT)	Gw Elevation (FT)	Δ Elev. of VBW and GW
	NAD83	NAD83	NGVD 1929	NGVD 1929	FTOC (0.0')	NGVD 1929	FT	FTOC (0.0')	NGVD 1929	FT
BW-PZ-1	731221.93	608851.47	5.41	4.70	2.01	3.40	1.30	1.95	3.48	1.24
BW-MW-1	731232.48	608859.01	5.62		1.18	4.48		1.39	4.23	
BW-PZ-2	731122.20	608785.03	5.62	4.99	2.35	3.27	1.72	2.32	3.30	1.69
BW-MW-2	731132.11	608792.88	5.83		1.39	4.44		1.52	4.31	
BW-PZ-3	731025.82	608790.21	5.29	5.24	2.47	2.82	2.42	2.47	2.82	2.42
BW-MW-3	730985.97	608838.74	10.77		7.25	3.52		7.45	3.32	
BW-PZ-4	730883.74	608700.33	5.23	5.08	2.61	2.62	2.45	2.58	2.65	2.42
BW-MW-4	730852.99	608741.21	10.69		7.54	3.15		7.45	3.24	
BW-PZ-5	730876.84	608596.12	4.67	3.95	1.45	3.22	0.73	1.49	3.18	0.77
BW-MW-5	730824.35	608557.81	12.18		8.35	3.83		8.39	3.79	
BW-PZ-6	730958.19	608488.71	4.41	3.90	1.38	3.05	0.85	1.41	3.00	0.90
BW-MW-6	730904.68	608478.73	8.95		5.15	3.80		5.31	3.64	
BW-PZ-7	731089.53	608451.64	4.80	3.13	1.22	3.58	-0.46	1.19	3.81	-0.49
BW-MW-7	731086.88	608428.05	4.89		0.00	4.89		0.00	4.89	
BW-PZ-8	731220.67	608564.35	5.11	3.71	1.49	3.62	0.09	1.4	3.71	0.00
BW-MW-8	731238.98	608540.79	5.02		0.2	4.82		0.35	4.87	

¹Top of Casing elevation was measured from the highest point of the PVC riser within the well protector.

²Yellow highlight denotes where the difference in elevation between groundwater measured inside of piezometer (inside of wall) and the top of the vertical barrier wall is less than 1 foot.

³The minimum difference in elevation required, for vertical barrier wall effectiveness, between ground water and the top of the vertical barrier wall is (+)1 foot.

Table 5 - Barrier Wall Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

		BW-MW-1			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120223BWMW1V7.5N	20120516BWMW-1V6.25N	20120816BW-MW1V9.0N	20121113BWMW-1V7N
Lab Sample No.	PQLs and	460-24264-5	460-40400-3	460-24264-5	460-47045-1
Sampling Date	GW Quality	2/23/12	05/16/2012	8/16/12	11/13/2012
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	1.9	0.73	1.9
Mercury, Dissolved	2	µg/L	NR	NR	NR

		BW-MW-2			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120221BWMW2V7N	20120516BWMW-2V7N	20120816BW-MW2V8.0N	20121113BWMW-2V7N
Lab Sample No.	PQLs and	460-24087-5	460-40400-4	460-24087-5	460-47045-2
Sampling Date	GW Quality	2/21/12	05/16/2012	8/16/12	11/13/2012
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	0.54	0.27	0.16
Mercury, Dissolved	2	µg/L	NR	NR	NR

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 5 - Barrier Wall Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

		BW-MW-3			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120220BWMW3V13.7N	20120517BWMW-3	20120816BW-MW3V12.0N	20121112BWMW3V11N
Lab Sample No.	PQLs and	460-24087-2	460-40404-2	460-24087-2	460-46959-1
Sampling Date	GW Quality	2/20/12	05/17/2012	8/16/12	11/12/2012
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	0.25	0.65	1.1
Mercury, Dissolved	2	µg/L	NR	NR	NR

		BW-MW-4			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120220BWMW4V12.75N	20110516BWMW-4V12N	20120816BW-MW4V14.0N	20121112BWMW4V12N
Lab Sample No.	PQLs and	460-24309-4	460-40400-5	460-24309-4	460-46959-3
Sampling Date	GW Quality	2/20/12	05/17/2012	8/16/12	11/12/2012
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	4.3	2.6	5.2
Mercury, Dissolved	2	µg/L	0.44	0.55	1.8

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 5 - Barrier Wall Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

		BW-MW-5			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120221BWMW5V11.75N	20120517BWMW-5	20120813 BW-MW5V13.0N	20121112BWMW5V12.5N
Lab Sample No.	PQLs and	460-24309-5	460-40404-4	460-43507-2	460-46959-4
Sampling Date	GW Quality	2/21/12	05/17/2012	8/13/2012	11/12/2012 14:35:00
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	0.16 U	0.27	0.25
Mercury, Dissolved	2	µg/L	NR	NR	NR

		BW-MW-6			
		Q1	Q2	Q3	Q4
Sample ID	NJ Higher of	20120223BWMW6V9N	20120517BWMW-6	20120816BW-MW6V9.0N	20121113BWMW-6V9.5N
Lab Sample No.	PQLs and	460-24309-7	460-40404-3	460-43655-7	460-47045-3
Sampling Date	GW Quality	2/23/12	05/17/2012	8/15/2012	11/13/2012 14:25:00
Matrix	2005 Criteria	Water	Water	Water	Water
METALS					
Total Mercury	2	µg/L	0.23	0.27	0.68
Mercury, Dissolved	2	µg/L	NR	NR	NR

Notes:

Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Table 5 - Barrier Wall Groundwater Sampling Results
OM&M 2012 Annual Report
Morton International Ventron/Velsicol Operable Unit One
Wood-Ridge, NJ

BW-MW-7									
		Q1		Q2		Q3		Q4	
Sample ID	NJ Higher of	20120221BWMW7V7N		20120517BWMW-7		20120813 BW-MW7V8.0N		20121113BWMW-7V7N	
Lab Sample No.	PQLs and	460-24264-1		460-40404-5		460-43507-1		460-47045-4	
Sampling Date	GW Quality	2/21/12		05/17/2012		8/13/2012		11/13/2012 12:05:00	
Matrix	2005 Criteria	Water		Water		Water		Water	
METALS									
Total Mercury	2	µg/L	0.18	U	0.16	U	0.37		0.16 U
Mercury, Dissolved	2	µg/L	NR		NR		NR		NR

BW-MW-8									
		Q1		Q2		Q3		Q4	
Sample ID	NJ Higher of	20120223BWMW8V7N		20120516BWMW-8V7N		20120816BW-MW8V8.0N		20121113BWMW-8V7N	
Lab Sample No.	PQLs and	460-24264-2		460-40400-1		460-24264-2		460-47045-5	
Sampling Date	GW Quality	2/23/12		05/16/2012		8/16/12		11/13/2012	
Matrix	2005 Criteria	Water		Water		Water		Water	
METALS									
Total Mercury	2	µg/L	15		7.6		19		13
Mercury, Dissolved	2	µg/L	0.67		0.73		0.67		2.1

Notes:

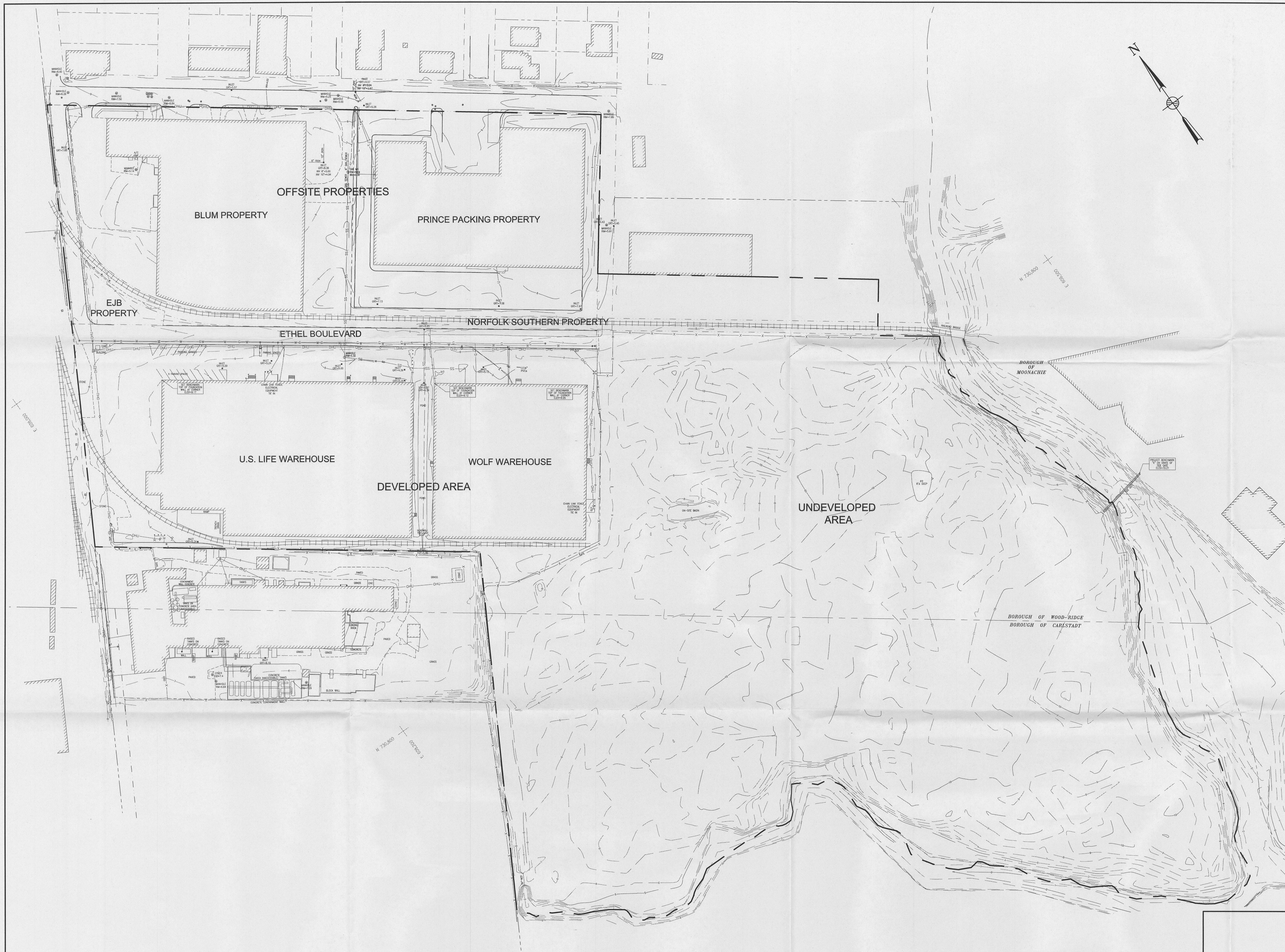
Grey shading indicates that the concentration was detected above its NJ PQLs and GW Quality Criteria.

U - The compound was not detected

J - The concentration is an approximate value

NR - Sample was not run for this analysis

Figures



OM&M 2012 ANNUAL REPORT

MORTON INTERNATIONAL, INC.

100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

JOB NO. 445806
CONTRACTOR'S JOB NO.

VENTRON/VELSICOL SUPERFUND SITE OU-1
WOOD-RIDGE/CARLSTADT, NEW JERSEY
DEED NOTICE
PROPERTIES

SCALE AS SHOWN

PARSONS
200 COTTONTAIL LANE
SOMERSET, NJ 08873-1148

PRJ. MGR.	DSGN. MGR.	RESP. ENGR.	DATE	REV
OG	SA	NJC	4/8/11	
SHEET NUMBER				
FIGURE 1				

NO.	REVISION	DWN.	CHK.	CHK.	CHK.	DATE

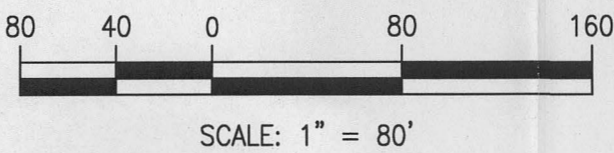
ROBERT C. SWAGIN, P.E.
NEW JERSEY PROFESSIONAL ENGINEER NO. 240036687



	Flux Monitoring Sampling Program	
Monitoring Wells	CF-MW-1	S
	CF-MW-2	S
	CF-MW-3	S
	CF-MW-4	S
	CF-MW-5	S
	CF-MW-6	S
	CF-MW-7	S
	CF-MW-8	S
	CF-MW-9	S
	CF-MW-10	S
	CF-MW-11	S
	CF-MW-12	S
Piezometers	CF-PZ-1	WL
	CF-PZ-2	WL
	CF-PZ-3	WL
	CF-PZ-4	WL

- NOTES:
- "S" DENOTES A WELL WHICH MUST BE SAMPLED AND WHERE THE WATER LEVEL MUST BE MEASURED DURING THE GIVEN EVENT.
 - "WL" DENOTES A WELL OR PIEZOMETER WHERE THE WATER LEVEL MUST BE MEASURED DURING THE GIVEN EVENT.
 - SOME SAMPLING EVENTS WILL BE PERFORMED CONCURRENTLY. IF A WELL IS SCHEDULED TO BE SAMPLED FOR BOTH EVENTS, ONLY ONE SAMPLE WILL BE TAKEN AND THE RESULTS WILL BE USED FOR BOTH EVENTS.

- LEGEND:
- LIMITS OF OU-1 SITE
 - ⊕ BW-PZ-8 PIEZOMETER
 - ⊕ CF-MW-11 MONITORING WELL
 - ⊕ MW2 HISTORIC MONITORING WELL



NO.	REVISION	DWN.	CHK.	CHK.	CHK.	DATE

MORTON INTERNATIONAL, INC.

100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

JOB NO. 445806
CONTRACTOR'S JOB NO.
SCALE AS SHOWN

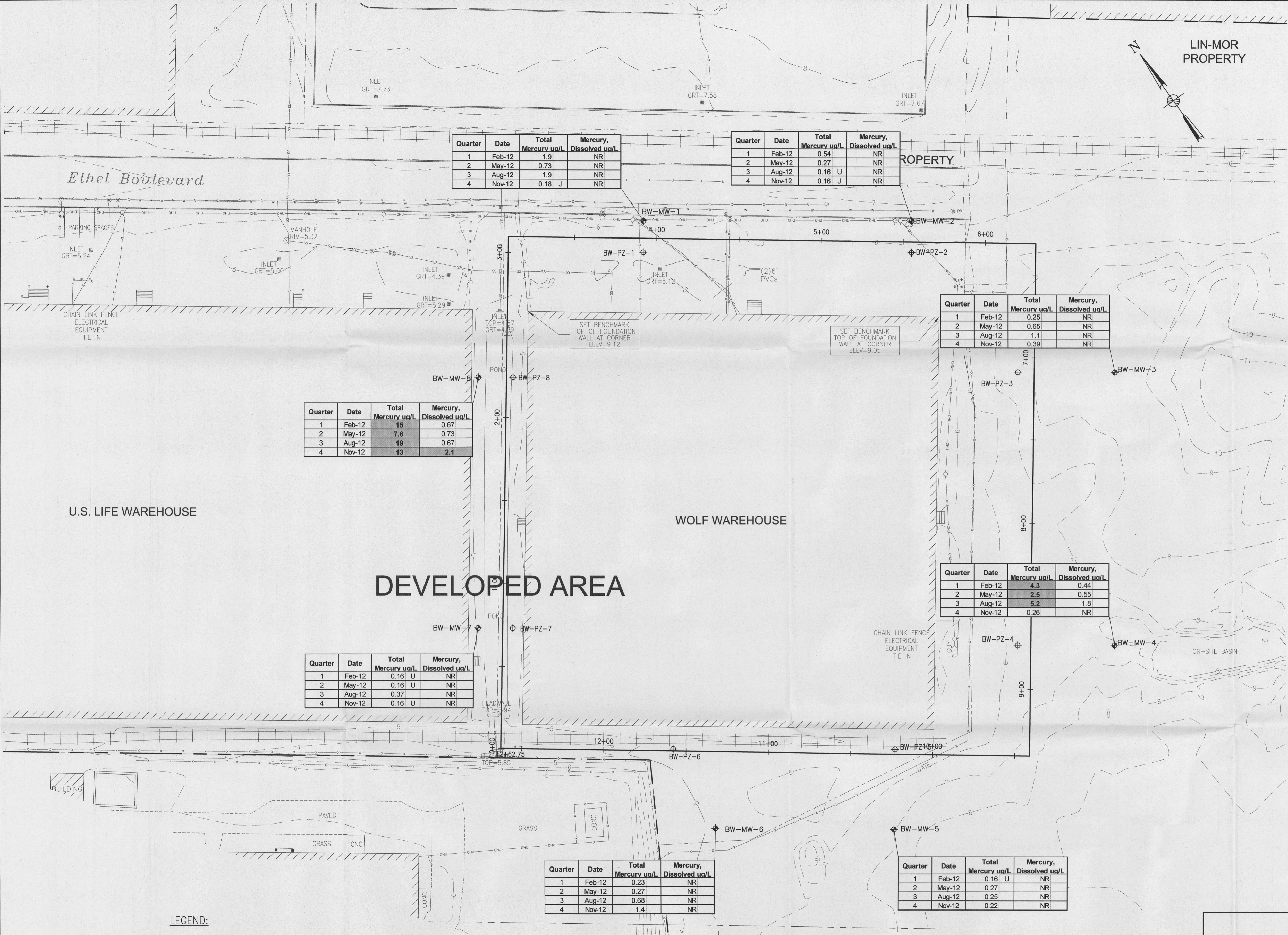
VENTRON/VELSICOL SUPERFUND SITE OU-1
WOOD-RIDGE/CARLSTADT, NEW JERSEY
CONTAMINANT FLUX MONITORING LOCATIONS

PARSONS
200 COTTONTAIL LANE
SOMERSET, NJ 08873-1148

CO.	SA.	NIG.	4/8/11
PRJ. MNGR.	DSGN. MNGR.	RESP. ENGR.	DATE
SHEET NUMBER			REV

FIGURE 2

ROBERT C. SWABIN, P.E.
NEW JERSEY PROFESSIONAL ENGINEER NO. 2462036687



Vertical Barrier Wall Effectiveness Sampling Program		
Monitoring Wells	BW-MW-1	S
	BW-MW-2	S
	BW-MW-3	S
	BW-MW-4	S
	BW-MW-5	S
	BW-MW-6	S
	BW-MW-7	S
	BW-MW-8	S
Piezometers	BW-PZ-1	WL
	BW-PZ-2	WL
	BW-PZ-3	WL
	BW-PZ-4	WL
	BW-PZ-5	WL
	BW-PZ-6	WL
	BW-PZ-7	WL
	BW-PZ-8	WL

TABLE REFERENCE GUIDE		
Limit	Total Mercury ug/L	Mercury, Dissolved ug/L
NJ Higher of PQLs and GW Quality 2005	2	2

- NOTES:
- "S" DENOTES A WELL WHICH MUST BE SAMPLED AND WHERE THE WATER LEVEL MUST BE MEASURED DURING THE GIVEN EVENT.
 - "WL" DENOTES A WELL OR PIEZOMETER WHERE THE WATER LEVEL MUST BE MEASURED DURING THE GIVEN EVENT.
 - SOME SAMPLING EVENTS WILL BE PERFORMED CONCURRENTLY. IF A WELL IS SCHEDULED TO BE SAMPLED FOR BOTH EVENTS, ONLY ONE SAMPLE WILL BE TAKEN AND THE RESULTS WILL BE USED FOR BOTH EVENTS.
 - U-THE COMPOUND WAS NOT DETECTED.
 - NR-SAMPLE WAS NOT RUN FOR THIS ANALYSIS.
 - GREY SHADING DENOTES THAT THE CONCENTRATION WAS DETECTED ABOVE ITS NJ GW QUALITY CRITERIA.

OM&M 2012 ANNUAL REPORT

MORTON INTERNATIONAL, INC.

100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

JOB NO. 445806
CONTRACTOR'S JOB NO.
SCALE: AS SHOWN
VENTRON/VELSICOL SUPERFUND SITE OU-1
WOOD-RIDGE/CARLSTADT, NEW JERSEY
VERTICAL BARRIER WALL EFFECTIVENESS
MONITORING AND SAMPLING PLAN

PARSONS
200 COTTONTAIL LANE
SOMERSET, NJ 08873-1148

CG	SA	NIG	4/08/11
PRJ. MNGR.	DSGN. MNGR.	RESP. ENGR.	DATE
SHEET NUMBER		REV	REV
FIGURE 4			

Appendices

Appendix A – Deed Notice Inspection Forms

~~SLIP~~

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Ansons
Date: 2/23/12
Weather: clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Wolf Property
Current operator at the site (if different than above): _____
Property Street Address: Essex Blvd
Municipality (-ies): Wood-Ridge / Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse on grade, property surrounded by concrete.
Rail Road siding on south side of property with loading docks.
Truck loading docks on north side of property.

Describe the current site operations.

Site has active truck loading and unloading of material.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

WOLF

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

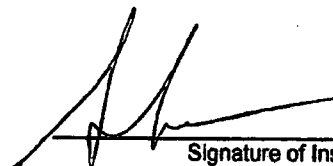
No: ☐

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: Si Monte
Organization: Parsons
Date: 2/23/12
Weather: Clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: U.S. Life
Current operator at the site (if different than above): Ready Row
Property Street Address: Ethel Blvd
Municipality (-ies): Wood-Ridge / Canlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse with concrete and asphalt surrounding building.
Active Truck and Rail loading docks.

Describe the current site operations.

Active Rail spur on South side of Building. Active Truck
docks on North side of building. The Facility is used for
Cold Storage of Food

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐ No: ☒

US L, Inc

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Asphalt parking area on north and west side of building
is damaged with potholes.

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

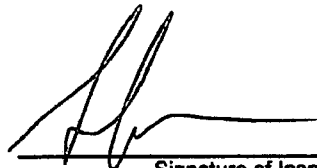
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 2/23/12
Weather: Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Undeveloped Property
Current operator at the site (if different than above): _____
Property Street Address: SEthe Blvd
Municipality (-ies): Woodridge / Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

undeveloped property. no buildings, gravel road on approximately
1/3 of perimeter.

Describe the current site operations.

no activities onsite, Environmental monitoring
underway.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐ No: ☒

Appendix B - Quarterly Deed Notice Inspection Form

Ventron/Velsicol Superfund Site Operable Unit 1

N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

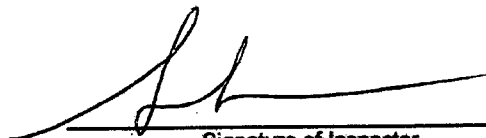
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 2/23/12
Weather: Clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Prime Packaging
Current operator at the site (if different than above): Prime Packaging
Property Street Address: Blum
Municipality (-ies): Wood Ridge
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse surrounded by grass and asphalt

Describe the current site operations.

Office and warehouse space.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Prince

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

n/a

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Asphalt damage in loading dock area
adjacent to Blum Ave

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: PARSONS
Date: 2/23/12
Weather: Clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Blum
Current operator at the site (if different than above): Blum
Property Street Address: 50 Blum Ave
Municipality (-ies): Wood Ridge
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Brick building surrounded by asphalt parking and grass.

Describe the current site operations.

Warehouse and office space.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Blum

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐


No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Pancons
Date: 2/23/12
Weather: Clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

ETB

Current operator at the site (if different than above):

Ready Row

Property Street Address:

Ethel Blvd and Park Place

Municipality (-ies):

Wood Ridge / Carlstadt

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt area used for parking of Ready Row Employees.

Describe the current site operations.

Parking only

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

ETB

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Asphalt needs repair, ponding of water.

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

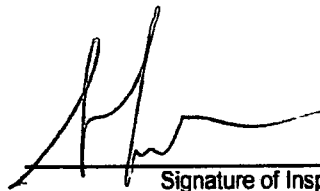
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 2/23/12
Weather: Clear

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Ethel Blvd
Current operator at the site (if different than above): _____
Property Street Address: Ethel Blvd
Municipality (-ies): Woodbridge / Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt Road.

Describe the current site operations.

Public Road for access to U.S. life, work and undeveloped property.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐ No: ☒

Ethel Blvd

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

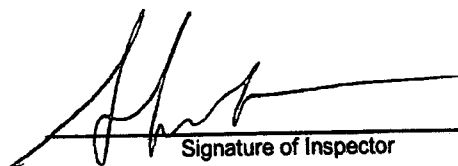
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 2/23/12
Weather: Clean

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Norfolk Southern
Current operator at the site (if different than above): Norfolk Southern
Property Street Address: Park Place and Ethel Blvd
Municipality (-ies): Wood-Ridge
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Active Rail Road spur, gravel base.

Describe the current site operations.

Active Rail Road spur that services facilities to the North East of undeveloped property.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Norfolk 2/23/12

Appendix B - Quarterly Deed Notice Inspection Form

Ventron/Velsicol Superfund Site Operable Unit 1

N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Tracks For Wolf Property Encroaching on gravel
Siding of R.R. tracks

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☐

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD860526679

Inspector: S. Monte
Organization: Parsons
Date: 5/17/12
Weather: Partly cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Wolf Property

Current operator at the site (if different than above):

—

Property Street Address:

3 Ethel Blvd

Municipality (-ies):

Wood-Ridge & Carlstadt JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse structure. Surrounding surface is concrete with R.R. track spur on south end.

Describe the current site operations.

Shipping and receiving of cardboard. Transition trailer traffic as well as personal vehicle traffic.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

WOLF

5/17/12

Appendix B - Quarterly Dead Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Dead Notice here:

Superficial concrete cracking.

Minor and previously noted. Not expanding. JK 7/10

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

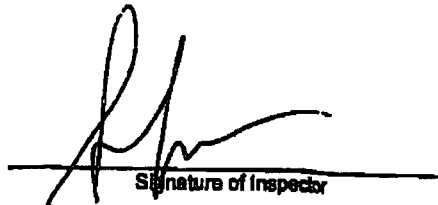
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

U.S. Life

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529878

Inspector: S. Plonke
Organization: Parsons
Date: 5/17/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: U.S. Life
Current operator at the site (if different than above): Randy Row
Property Street Address: Ethel Blvd
Municipality (-ies): Wood-Ridge & Carlstadt
County (-ies): Bergen

JK
7/10

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse with asphalt parking on north and west sides. RR tracks on south side.

Describe the current site operations.

Food distributor warehouse

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

US Life

5/17/12

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A Potholes

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M Inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Potholes on site do not reach the soil Layer.
Only reach previous asphalt.

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

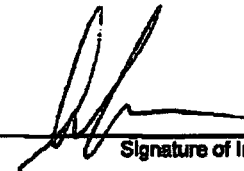
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Apcon
Date: 5/17/12
Weather: Partly

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Underdeveloped Property

Current operator at the site (if different than above):

Property Street Address:

SEthal Blvd

Municipality (-ies):

Wood-Ridge & Carlstadt JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Vegetation covered property, no structures.

Describe the current site operations.

NO activity at this time.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Undeveloped Property 5/17/12

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD880529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M Inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

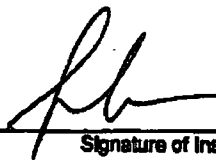
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980528578

Inspector: S. Monte
Organization: Parsons
Date: 5/17/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Prince Packaging

Current operator at the site (if different than above):

Prince Packaging

Property Street Address:

Blum Blvd

Municipality (-ies):

Wood-Ridge

JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Building used for warehouse and office space.
Asphalt loading dock area and grass cover.

Describe the current site operations.

Building used as warehouse and office space.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Paint Packaging 5/17/12

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Persons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Potholes exist near loading dock adjacent to
Blum Blvd. Soil does not appear to be exposed.

III. Attachments

A. Photos
Description:

Yes: ☒

No: ☐

B. Sketches:
Description:

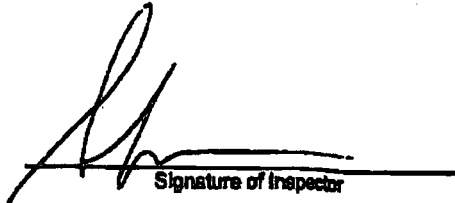
Yes: ☐

No: ☐

C. Supplemental Inspection Notes/Forms:
Description: (Persons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529579

Inspector: S. Monte
Organization: Parsons
Date: 5/17/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Blum Property

Current operator at the site (if different than above):

Same

Property Street Address:

Blum Blvd

Municipality (-ies):

Wood-Ridge

JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse and office space, grass, sidewalk, asphalt
surface cover

Describe the current site operations.

Property is used as warehouse and office space.

Parking lot on East side of property, loading docks on
North and West side.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

JK 7/10

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Blum 5/17/11

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD990529879

Inspector: S. Monte
Organization: Parsons
Date: 5/17/12
Weather: Partly cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

EJB

Current operator at the site (if different than above):

Ready Row

Property Street Address:

15th Blvd

Municipality (-ies):

Wood-Ridge & Carlstadt

JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt parking area

Describe the current site operations.

Asphalt parking area used by Ready Row Employees.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

EJB 5/17/12

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD880528879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Pot Holes are on the surface layer of asphalt only.
Soil not exposed.

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980526878

Inspector: S. Monte
Organization: Ponsons
Date: 5/17/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Ethel Blvd

Current operator at the site (if different than above):

Property Street Address:

Ethel Blvd

Municipality (-ies):

Wood-Ridge & Carlstadt JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt Public Road.

Describe the current site operations.

Used as public road to access Du-1,
Ready Row and Wolf property.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Ethel Blvd 5/17/12

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A Potholes

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M Inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Potholes do not reach 50:1 - only secondary asphalt

III. Attachments

A. Photos

Description:

Yes: ☐

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☐

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☐

Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980528870

Inspector: S. Monte
Organization: Parsons
Date: 5/17/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Nonfolk Southern

Current operator at the site (if different than above):

Nonfolk Southern

Property Street Address:

—

Municipality (-ies):

Wood-Ridge

JK 7/10

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Rail Road Spurs that services adjacent properties
to the north. Gravel base with wooden railroad
ties and steel track

Describe the current site operations.

Rail Road Spurs. Seldom used by adjacent property during
Normal Site visits

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

5/17

Non Fol

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD080529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte

Organization: Parsons

Date: 8/15/12

Weather: partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Wolf Warehouse

Current operator at the site (if different than above):

Ethel Blvd

Property Street Address:

Woodbridge

Municipality (-ies):

Bergen

County (-ies):

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse, railroad zone. Concrete apron surrounding building

Describe the current site operations.

Warehouse space Active. currently Stone Carpets & Rugs. Active trucking operations. No Active Rm.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

WOLF

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: PANSDAS
Date: 8/15/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Current operator at the site (if different than above):

Property Street Address:

Municipality (-ies):

County (-ies):

US LIFE
Ready Run
Exell Blvd
W DODRIDGE
Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

warehouse, asphalt, rail spine.

Describe the current site operations.

warehouse refrigerated space, trucking, rail use

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

Potholes on site Repaired

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

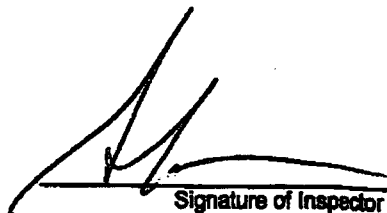
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Martz
Organization: Parsons
Date: 8/15/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Prince Packaging

Current operator at the site (if different than above):

Prince Packaging

Property Street Address:

Blum Ave

Municipality (-ies):

Wood-Ridge

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

warehouse, grass, asphalt, parking lot

Describe the current site operations.

Office space and warehouse.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☒ No: ☐

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

*Appears new under ground power lines were installed
as well as new power pole. Unknown Depth of
Excavation*

Party (-ies) responsible for the disturbance:

unknown

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Pansons
Date: 8/15/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Blum

Current operator at the site (if different than above):

Blum

Property Street Address:

20 Blum Ave

Municipality (-ies):

Woodridge NJ

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt, grass, brick building

Describe the current site operations.

Office and warehouse space

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒

Residential: ☐

Agricultural: ☐

Other: ☐

Current land use (check all that apply):

Non-Residential: ☒

Residential: ☐

Agricultural: ☐

Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

B/L-m

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

B. Excavations and Disturbances (cont.): N.J.D.E.P Interest Number: NJD980529879

If yes answered above:

Description of the disturbance and methods to address the disturbance:

n/a

Party (-ies) responsible for the disturbance:

n/a

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

n/a

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

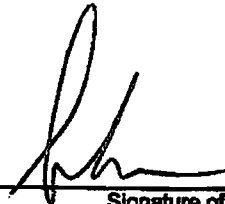
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 8/15/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

EJB

Current operator at the site (if different than above):

Randy Row Parking

Property Street Address:

Etzel Blvd & Park Place

Municipality (-ies):

Wood-Ridge

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt parking area

Describe the current site operations.

Parking for Randy Row Employees.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

n/a

Party (-ies) responsible for the disturbance:

n/a

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

n/a

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐


No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 8/15/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Ethel Blvd

Current operator at the site (if different than above):

Property Street Address:

Ethel Blvd

Municipality (-ies):

Wood-Ridge

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt Road

Describe the current site operations.

Access Road to U.S. Life and Wolf Warehouse
as well as DW-1.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Ethel B. V.

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1

N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M Inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐


No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☐

No: ☒



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Mark
Organization: Parsons
Date: 8/5/12
Weather: partly cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Portfolk Southern
Current operator at the site (if different than above): Nonfolk Southern
Property Street Address: Adjacent to Ethel Blvd
Municipality (-ies): Woodbridge
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Rail Road Spur, gravel, vegetation

Describe the current site operations.

Active Rail Spur. Limited use.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Mon Fork Southern

Appendix B - Quarterly Deed Notice Inspection Form

Ventron/Velsicol Superfund Site Operable Unit 1

N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Inspector: S. Monte
Organization: Ansons
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Wolf Warehouse
Current operator at the site (if different than above): Prime Packaging
Property Street Address: Ethel Blvd
Municipality (-ies): Woodbridge Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

↖ Warehouse currently storing and distributing
carpets and rugs.

Describe the current site operations.

Concrete structure on concrete slab. Surrounding
apron is concrete. Rail Road siding on south side of
property.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: Parsons
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: U.S. Life
Current operator at the site (if different than above): Ready Row
Property Street Address: 3 Eitel Blvd
Municipality (-ies): Wood-Ridge/Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse (concrete) surrounded by concrete and asphalt. RR on south side of property.

Describe the current site operations.

Warehouse space for Refrigerated Foods. Site
TRAFFIC OF RAIL CARS and Tractor trailers.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐



Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: PARSONS
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Prince Packaging
Current operator at the site (if different than above): Prince Packaging
Property Street Address: Blum
Municipality (-ies): Wood-Ridge / Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Warehouse surrounded by asphalt and grass.
Recently repaired potholes in truck entrance. No
Soil Disturbance identified.

Describe the current site operations.

Warehouse, Office used for distribution.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐ No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes:



No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes:



No: ☒

See


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

Inspector: S. Monte
Organization: PANSONS
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Blum
Current operator at the site (if different than above): Blum
Property Street Address: Blum Ave
Municipality (-ies): Wood-Ridge
County (-ies): Passaic

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Brick and concrete building surrounded by grass and asphalt.

Describe the current site operations.

Warehouse and office space.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

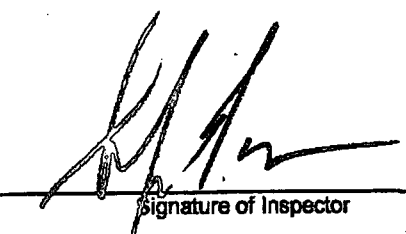
No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD930529879

Inspector: S. Monte
Organization: Parsons
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

EJB

Current operator at the site (if different than above):

Ready Row Parking

Property Street Address:

Ethel Blvd & Park Place

Municipality (-ies):

Wood-Ridge / Carlstadt

County (-ies):

Bergen County

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt Parking Area

Describe the current site operations.

Parking For Ready Row Employees

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒

Residential: ☐

Agricultural: ☐

Other: ☐

Current land use (check all that apply):

Non-Residential: ☒

Residential: ☐

Agricultural: ☐

Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD080528679

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

n/a

Party (-ies) responsible for the disturbance:

n/a

C. Remarks:

For environmental control inspection notes see Parsons OM&M Inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

n/a

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Inspector: S. Monte
Organization: Ansons
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice:

Ethel Blvd

Current operator at the site (if different than above):

Public Road

Property Street Address:

Ethel Blvd

Municipality (-ies):

Wood-ridge / Carlstadt

County (-ies):

Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Asphalt public Road.

Describe the current site operations.

Public Road used to access Ready Row, Wolf Warehouse
and on-1 undeveloped site.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐

No: ☒

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Inspector: S. Monte
Organization: Parsons
Date: 11/13/12
Weather: Partly Cloudy

I. Background Site Information

A. Facility Name and Location:

Business Name as it appears on the Deed Notice: Norfolk Southern R.R.
Current operator at the site (if different than above): Norfolk Southern R.R.
Property Street Address: —
Municipality (-ies): Wood-Ridge / Carlstadt
County (-ies): Bergen

B. Existing Site Conditions:

Describe the physical characteristics of the Site.

Rail Road Track and siding (gravel).

Describe the current site operations.

Rail Road Track and siding.

II. Evaluation of Institutional and Engineering Controls:

A. Zoning or Land Use Changes:

Land use at the time the Deed Notice/DER was filed (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

Current land use (check all that apply):

Non-Residential: ☒ Residential: ☐ Agricultural: ☐ Other: ☐

B. Excavations and Disturbances:

Has any excavation or other disturbance activity taken place within the restricted area which has resulted in unacceptable exposure to soil or ground water contamination?

Yes: ☐ No: ☒

Appendix B - Quarterly Deed Notice Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
N.J.D.E.P Interest Number: NJD980529879

B. Excavations and Disturbances (cont.):

If yes answered above:

Description of the disturbance and methods to address the disturbance:

N/A

Party (-ies) responsible for the disturbance:

N/A

C. Remarks:

For environmental control inspection notes see Parsons OM&M inspection form (attachments). Provide notes regarding disturbances to other institutional controls (i.e. groundwater monitoring wells) or other significant observations which may affect the integrity of the Deed Notice here:

N/A

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches:

Description:

Yes: ☐

No: ☒

C. Supplemental Inspection Notes/Forms:

Description: (Parsons OM&M Form)

Yes: ☒

No: ☐


Signature of Inspector

Appendix B – Data Usability Reports

Appendix B

Data Usability Report / Quality Assurance Review:

2012 Quarter 1 Groundwater Sampling

January 1, 2012 through March 31, 2012

1.0 Introduction

This report documents the data usability report, quality assurance review, and data validation results of samples collected from the Ventron/Velsicol Superfund Site OU-1 (OU-1) located in Wood-Ridge and Carlstadt, New Jersey (the Site). The sampling event was conducted as part of ongoing OM&M activities and is being reported in accordance with the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E, Subchapter 4) (NJDEP, 2009). A summary of the number of samples is presented in the *Sample Sets* (Section 3).

The data usability report, quality assurance review, and data validation were conducted to verify that all project quality control requirements were met, and that the quality of the data is sufficient to support its intended purpose. Data validation and assignment of validation qualifiers was according to:

- U.S. Environmental Protection Agency's (USEPA's) Region 2 Standard Operating Procedure (SOP) HW-24 "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B" (USEPA 2006).
- USEPA's Region 2 SOP HW-2 "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3 (SOP Revision 13)" (USEPA 2006).

The results of the quality assurance review are presented herein and summarized in **Tables A and B**.

2.0 Data Validation Procedures

The data validation and quality assurance review included performance of a completeness audit and a review of the following parameters, where applicable: holding times, sample preservation, calibration results, trip blank (TB) analyses, equipment blank (EB) analyses, method (preparation) blank analyses, matrix spike (MS) analyses, laboratory control sample (LCS) analyses, laboratory duplicate analyses, and field duplicate (FD) pair analyses, reporting limits, and analytical linear range. In performing the data validation, the raw data were spot-checked in accordance with the USEPA Region 2 and NJDEP SOP to evaluate whether there were any transcription errors. Data qualifiers would have been assigned during the quality assurance review if applicable control limits were not met, in accordance with USEPA Region 2 and/or NJDEP SOPs.

The following laboratory deliverables were reviewed during the data validation process:

- Chain-of-custody documentation to verify completeness of the data
- Case narratives discussing analytical problems (if any) and procedures
- Samples preparation logs or laboratory summary results forms to verify analytical holding times
- Results for initial calibration verification and continuing calibration verification to assess instrument performance
- Results for initial calibration blanks, continuing calibration blanks, and method (preparation) blanks to check for laboratory contamination
- Results from MS analysis and LCS analysis to evaluate analytical accuracy
- Results for applicable matrix spike duplicate (MSD) results and laboratory duplicate results to check analytical precision
- Results for applicable FD pair results to check total precision of the sampling and analysis process.
- Method detection limits (MDLs) to verify that reporting limit (RL) requirements were met.

Results of these quality assurance/quality control (QA/QC) procedures and data qualifiers applied during validation are discussed under the *Data Quality Assessment* section below. In addition, results for all applicable field quality control samples were reviewed. These results listed below provide additional information in support of the data usability report and quality assurance review:

- FD results to evaluate sampling overall precision;
- EB results to evaluate potential field contamination; and,
- TB results to evaluate potential sample contamination.

3.0 Sample Sets

Sample analysis was conducted by TestAmerica, Inc. for all groundwater samples. **Table A** summarizes number of samples and duplicates collected.

3.1 Analytical Methods

Table A summarizes the analysis methods performed on each sample.

3.2 Sample Delivery Groups

Two sample delivery groups (SDGs) were validated as part of the Quarterly Report 1. The data packages contained all documentation and data necessary to conduct the data usability report, quality assurance review, and data validation. The other two SDGs were not validated, but their Case Narratives were reviewed for any performance issues the laboratory reported.

3.3 Data Acceptability Report

The Data Acceptability Report (DAR) was conducted to monitor laboratory performance with respect to contract issues and methods requirements. The project requirements were that 50% of the collected data shall be validated according to NJDEP and USEPA Region 2 SOPs. A total of 22 samples and two field duplicates were analyzed with 11 of them selected for laboratory filtration and analysis for dissolved arsenic (10 samples) and dissolved mercury (three samples). Two SDGs (J37057 and J37210) were validated. The validated SDGs contained a total of 10 samples, two equipment blanks (EBs), two trip blanks (TBs), and two field duplicates.

The USEPA Region 2 criteria are summarized in **Table B**.

For the remaining SDGs (J37096 and J37169), the case narratives were reviewed for any notable non-compliance issues reported by the laboratory. No gross data quality noncompliance issues were reported by the laboratory.

4.0 Data Quality Assessment (DQA)

The SDGs that were validated are discussed below. The laboratory data were evaluated in terms of completeness, holding times, preparation blanks, quantitative limits, CRDL check, accuracy, precision, and field quality control samples.

4.1 Completeness

The results reported by the laboratory were 100-percent usable; no sample results were rejected.

4.2 Holding Time

All samples were received in good condition and within the technical holding time for all analytes for each analytical method.

4.3 Initial Calibration Verification (ICV)

ICV was completed at the appropriate frequency, as required. All ICVs associated with the sample analyses met the applicable criteria for acceptable performance.

4.4 Continuing Calibration Verification (CCV)

CCVs are used to verify the validity of the initial instrument. CCVs were completed at the appropriate frequency, as required. All CCVs met the criteria for acceptable performance.

4.5 Initial and Continuing Calibration Blank, Preparation Blank, and Field Blank Analyses

All initial calibration blanks, continuing calibration blanks, method (preparation) blanks, and field blanks (TBs and EBs) met the criteria for acceptable performance.

4.6 Quantitative Limits

The quantitative limits for all methods analyses met acceptable performance for each analysis method and matrix.

4.7 Contract-Required Detection Limit (CRDL) Check

CRDL checks met acceptable performance criteria.

4.8 System Monitoring

System monitoring compounds (surrogate) recovery met acceptable performance criteria.

4.9 Internal Standard

Internal standard compounds recovery met acceptable performance criteria.

4.10 Accuracy

The accuracy of the analytical results is evaluated in the following sections in terms of analytical bias (MS and LCS recoveries).

4.10.1 Matrix Spike Recoveries

MS samples are used to determine laboratory performance for the sample matrix under analysis. The MS recovery met acceptable performance criteria for each analyte for all analytical methods.

4.10.2 Laboratory Control Sample Recoveries

LCSs are used to monitor laboratory efficiency for the analysis of a standard matrix that is similar to the samples. The LCS recovery criteria for acceptable performance were met for each analytes for all analytical methods.

4.10.3 Serial Dilution

For methods EPA 200.8 (metals) and EPA 245.1 (mercury), serial dilutions are used to monitor laboratory performance of a 5-fold dilution of a project sample and spiked with a known

concentration. Serial dilution recovery criteria for acceptable performance are $\%D \leq 10\%$ conc $\geq 25 \times \text{DL}$ (Hg) and $10 \times \text{IDL}$ (metals) for 5-fold dilution, and all serial dilution $\%D$ were acceptable.

4.11 Precision

Precision is determined by evaluating the relative percent difference (RPD) of the parent/field duplicate and the parent/laboratory duplicate. The results reported by the laboratory for duplicate sample analyses, and the frequency of analysis, met the criteria for acceptable performance.

Two parent/FD sample pairs were validated: 20120220BWMW4V12.75N and 20120220BWMW4V12.75FD, and 20120223CFMW8V14N and 20120223CFMW8V14FD. The parent/FD pairs RPD results for each analyte for all analytical methods were acceptable.

4.12 Field Quality Control Samples

The results for all field quality control samples were evaluated. The field quality control samples included TBs, EBs, and FDs. The results of the TB and EB analyses were discussed above (Section 4.5). The results of the FD analyses were discussed above (Section 4.11).

4.13 Target Compound List (TCL) Analytes

There were no non-compliance issues for samples with detected TCL analytes.

**Appendix B
Table A
Summary of Validated Analysis Methods
2012 Quarter 1 Groundwater Sampling
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ**

Sample ID	Sample Date	Sample Type	SDG	Project Sample	Validated	VOC (8260B)	Total Arsenic (EPA 200.8)	Total Mercury (EPA 245.1)	Dissolved Arsenic (EPA 200.8)	Dissolved Mercury (EPA 245.1)
20120220BWMW3V13.7N	2/20/2012	Normal	J37057	Y	Y	X	X	X	X	
20120220BWMW3V13.7N	2/20/2012	MS	J37057	N	N	X	X	X		
20120220BWMW3V13.7N	2/20/2012	MSD	J37057	N	N	X				
20120220BWMW3V13.7N	2/20/2012	Lab Dup	J37057	N	N		X	X		
20120220BWMW4V12.75N	2/20/2012	Normal	J37057	Y	Y	X	X	X	X	X
20120220BWMW4V12.75FD	2/20/2012	Field Dup	J37057	Y	Y	X	X	X		
20120220 VV EB	2/20/2012	EB	J37057	N	N	X	X	X		
20120220 VV TB	2/20/2012	TB	J37057	N	N	X				
20120221BWMW2V7N	2/21/2012	Normal	J37096	Y	N	X	X	X	X	
20120221BWMW5V11.75N	2/21/2012	Normal	J37096	Y	N	X	X	X		
20120221CFMW1V11.8N	2/21/2012	Normal	J37096	Y	N	X	X	X	X	
20120221BWMW7V7N	2/21/2012	Normal	J37096	Y	N	X	X	X	X	
20120221CFMW3V13.5N	2/21/2012	Normal	J37096	Y	N	X	X	X	X	
20120221VVEB	2/21/2012	EB	J37096	N	N	X	X	X		
20120221VVTB	2/21/2012	TB	J37096	N	N	X				
20120221CFMW4V12.5N	2/21/2012	Normal	J37096	Y	N	X	X	X		
20120222CFMW2V14.75N	2/22/2012	Normal	J37169	Y	N	X	X	X	X	
20120222CFMW7V14.5N	2/22/2012	Normal	J37169	Y	N	X	X	X		
20120222CFMW10V12.5N	2/22/2012	Normal	J37169	Y	N	X	X	X		
20120222CFMW12V9.5N	2/22/2012	Normal	J37169	Y	N	X	X	X		
20120222CFMW9V14.25N	2/22/2012	Normal	J37169	Y	N	X	X	X		
20120222CFMW11V13N	2/22/2012	Normal	J37169	Y	N	X	X	X		
20120222VVEB	2/22/2012	EB	J37169	N	N	X	X	X		
20120222VVTB	2/22/2012	TB	J37169	N	N	X				
20120223BWMW1V7.5N	2/23/2012	Normal	J37210	Y	Y	X	X	X		
20120223BWMW6V9N	2/23/2012	Normal	J37210	Y	Y	X	X	X	X	
20120223BWMW8V7N	2/23/2012	Normal	J37210	Y	Y	X	X	X	X	X
20120223CFMW5V13N	2/23/2012	Normal	J37210	Y	Y	X	X	X		
20120223CFMW6V13.5N	2/23/2012	Normal	J37210	Y	Y	X	X	X		
20120223CFMW8V14FD	2/23/2012	Field Dup	J37210	Y	Y	X	X	X		
20120223CFMW8V14N	2/23/2012	Normal	J37210	Y	Y	X	X	X		
20120223MW10V8N	2/23/2012	Normal	J37210	Y	Y	X	X	X		X
20120223MW11V9N	2/23/2012	Normal	J37210	Y	Y	X	X	X	X	
20120223VVEB	2/23/2012	EB	J37210	N	N	X	X	X		
20120223VVTB	2/23/2012	TB	J37210	N	N	X				

Note: Dissolved Arsenic and mercury were only analyzed for if detectable results were reported for the Total analysis.

Appendix B
Table B
Summary of DAR Aqueous Criteria
2012 Quarter 1 Groundwater Sampling
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

	VOC (SW-846 8260B) and SW846 8260B by SIMs	Metals (EPA 200.8) Total and Dissolved
Data Completeness, Holding Times, Preservation, & Solids Percentage	Cooler temp < 4 °C. Samples holding time requirement < 7 days (<14 days if HCL preserved). Solids percentage >50%.	Cooler temp < 4 C. Holding Time Hg < 28 days, CN < 14 days, and all other metals < 180 days from collection.
System Monitoring Compounds	recoveries within limits (70 - 130%) or laboratory established limits	
Matrix Spike/Matrix Spike Duplicates	MS/MSD: 1 per 20 project samples. Recoveries within lab limits (or 70-130%). RPD <22%	MS/MSD: 1 per 20 project samples or each preparation batch. Recoveries within lab limits. MS/MSD %RPDs <= 20%. Spike Recovery limits 75-125%
Lab Control Sample/Duplicate		LCS/LCSD: 1 per 20 project samples or each preparation batch. LCS limits within 80-120%.
Blanks	Method blanks: 1 per 20 project samples. No TCL or TICs detected in MB, TB, or EB.	CC Blank Conc < 3xIDL. Method blanks: 1 per 20 project samples. No TCL or TICs detected in MB, TB, or EB.
GC/MS Instrument Performance Check	Performance check every 12 hours per instrument. Ion abundances normalized to m/z 95.	
TCL Analytes	RRT within 0.06 RRT units of standard RRT in CV.4. Relative intensities of characteristic ions within ± 30% of reference MS.	
Tentatively Identified Compounds	No TCLs are listed as TIC. Ions in reference MS with relative intensity ≥10% present in sample MS. TIC and "best match" standard relative ion intensities agree within ± 20%.	
Reported Quantitation Limits	Quantitation limits adjusted to reflect sample dilutions and moisture.	
CRDL Standard		CRDL results btw 70-130%
GC/MS Initial Calibration	%RSD ≤ 20%. Average RRFs > 0.050.	$r^2 \geq 0.995$ CCV every 10 samps or 2 hours ICV/CCV %R btw 90-110%
GC/MS Continuing Calibration	CV performed for every 12 hours per instrument. %D ≤ 20%. RRFs ≥ 0.05.	
Internal Standards	IS areas of samples & blank within (-50% to + 100%). RTs < 30 seconds.	
Duplicate	All % RPD ≤ 30%?	RPD < 35% or Absolute Diff < 2 RL when samp/dup value < 5x RL
ICP Interference Check Sample (ICS)		ICS results within 80-120%.
Serial Dilution		Performed on samples of a similar matrix or 1 per 20 samples. %D ≤ 10% conc ≥ 25xIDL (7470A/7471A) and 10x IDL (6010B) for 5-fold dilution.

RT = Retention Time %D = Percent Deviation
 TCL = Target TIC = Tentatively Identified
 Compound List Compound

Appendix B

Data Usability Report / Quality Assurance Review:

2012 Quarter 2 Groundwater Sampling

May 16, 2012 through May 17, 2012

1.0 Introduction

This report documents the data usability report, quality assurance review, and data validation results of samples collected from the Ventron/Velsicol Superfund Site OU-1 (OU-1) located in Wood-Ridge and Carlstadt, New Jersey (the Site). The sampling event was conducted as part of ongoing OM&M activities and is being reported in accordance with the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E, Subchapter 4) (NJDEP, 2009). A summary of the number of samples is presented in the *Sample Sets* (Section 3).

The data usability report, quality assurance review, and data validation were conducted to verify that all project quality control requirements were met, and that the quality of the data is sufficient to support its intended purpose. Data validation and assignment of validation qualifiers was according to:

- USEPA's Region 2 SOP HW-2 "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3 (SOP Revision 13)" (USEPA 2006).

The results of the quality assurance review are presented herein and summarized in **Tables A and B**.

2.0 Data Validation Procedures

The data validation and quality assurance review included performance of a completeness audit and a review of the following parameters: holding times, sample preservation, calibration results, equipment blank (EB) analyses, method (preparation) blank analyses, matrix spike (MS) analyses, laboratory control sample (LCS) analyses, laboratory duplicate analyses, and field duplicate (FD) pair analyses, reporting limits, and analytical linear range. In performing the data validation, the raw data were spot-checked in accordance with the USEPA Region 2 and NJDEP SOP to evaluate whether there were any transcription errors. Data qualifiers would have been assigned during the quality assurance review if applicable control limits were not met, in accordance with USEPA Region 2 and/or NJDEP SOPs.

The following laboratory deliverables were reviewed during the data validation process:

- Chain-of-custody documentation to verify completeness of the data
- Case narratives discussing analytical problems (if any) and procedures
- Samples preparation logs or laboratory summary results forms to verify analytical holding times

- Results for initial calibration verification and continuing calibration verification to assess instrument performance
- Results for initial calibration blanks, continuing calibration blanks, and method (preparation) blanks to check for laboratory contamination
- Results from MS analysis and LCS analysis to evaluate analytical accuracy
- Results for laboratory duplicate results to check analytical precision
- Results for applicable FD pair results to check total precision of the sampling and analysis process.
- Method detection limits (MDLs) to verify that reporting limit (RL) requirements were met.

Results of these quality assurance/quality control (QA/QC) procedures and data qualifiers applied during validation are discussed under the *Data Quality Assessment* section below. In addition, results for all applicable field quality control samples were reviewed. These results listed below provide additional information in support of the data usability report and quality assurance review:

- FD results to evaluate sampling overall precision; and,
- EB results to evaluate potential field contamination.

3.0 Sample Sets

Sample analysis was conducted by TestAmerica, Inc. for all groundwater samples. **Table A** summarizes number of samples and duplicates collected.

3.1 Analytical Methods

Table A summarizes the analysis methods performed on each sample.

3.2 Sample Delivery Groups

One sample delivery group (SDG), TestAmerica Job Number 460-40400-1, was validated as part of the Quarterly Report 2. The data package contained all documentation and data necessary to conduct the data usability report, quality assurance review, and data validation. The other SDG, TestAmerica Job Number 460-40404-1 was not validated, but the Case Narrative was reviewed for performance issues reported by the laboratory.

Note that the following Sample IDs in SDG 460-40400-1, “20120516BMW-4V12N”, “20120516BMW-4V12MS”, “20120516BMW-4V12MD”, and “20120516VVEB” were incorrectly written on the chain-of-custody. The year field of the sample ID was recorded as ‘2011’ instead of 2012’, and this error continues through the laboratory report. The laboratory was informed of this error. The Sample ID for the affected samples has been corrected in **Table 2** of the report.

3.3 Data Acceptability Report

The Data Acceptability Report (DAR) was conducted to monitor laboratory performance with respect to contract issues and methods requirements. The project requirements were that 50% of the collected data shall be validated according to NJDEP and USEPA Region 2 SOPs. A total of 10 groundwater samples, including one field duplicate, were analyzed for total mercury, with 3 samples selected for laboratory filtration and analysis for dissolved mercury. SDG 460-40400-1 (J40400-1) was validated. The validated SDG contained a total of 5 groundwater samples, including one field duplicate, as well as one equipment blank.

The USEPA Region 2 criteria are summarized in **Table B**.

For the remaining SDG (460-40404-1), the case narratives were reviewed for any notable non-compliance issues reported by the laboratory. No data quality non-compliance issues were reported by the laboratory and no sample results were qualified based on this data validation review.

4.0 Data Quality Assessment (DQA)

The SDG that was validated is discussed below. The laboratory data were evaluated in terms of completeness, holding times, preparation blanks, quantitative limits, CRDL check, accuracy, precision, and field quality control samples.

4.1 Completeness

The results reported by the laboratory were 100-percent usable; no sample results were rejected.

4.2 Holding Time

All samples were received in good condition and within the technical holding time for all samples for total and/or dissolved mercury.

4.3 Initial Calibration Verification (ICV)

ICV was completed at the appropriate frequency, as required. All ICVs associated with the sample analyses met the applicable criteria for acceptable performance.

4.4 Continuing Calibration Verification (CCV)

CCVs are used to verify the validity of the initial instrument. CCVs were completed at the appropriate frequency, as required. All CCVs met the criteria for acceptable performance.

4.5 Initial and Continuing Calibration Blank, Preparation Blank, and Equipment Blank Analyses

All initial calibration blanks, continuing calibration blanks, method (preparation) blanks, and equipment blanks met the criteria for acceptable performance.

4.6 Quantitative Limits

The quantitative limits for all methods analyses met acceptable performance for each analysis method and matrix.

4.7 Contract-Required Detection Limit (CRDL) Check

CRDL checks met acceptable performance criteria.

4.8 Accuracy

The accuracy of the analytical results is evaluated in the following sections in terms of analytical bias (MS and LCS recoveries).

4.8.1 Matrix Spike Recoveries

MS samples are used to determine laboratory performance for the sample matrix under analysis. The MS recovery for sample 201205168BMW-4V12N (lab ID 460-40400-5) for both total and dissolved mercury met acceptable performance criteria.

4.8.2 Laboratory Control Sample Recoveries

LCSs are used to monitor laboratory efficiency for the analysis of a standard matrix that is similar to the samples. The LCS recovery criteria for acceptable performance were met for both total and dissolved mercury.

4.8.3 Serial Dilution

For method EPA 245.1 (mercury), serial dilutions are used to monitor laboratory performance of a 5-fold dilution of a project sample and spiked with a known concentration. Serial dilution recovery criteria for acceptable performance are $\%D \leq 10\%$ conc $\geq 25 \times DL$ (Hg) and the serial dilution results for sample 201205168BMW-4V12N (lab ID 460-40400-5) for both total and dissolved mercury were acceptable.

4.9 Precision

Precision is determined by evaluating the relative percent difference (RPD) of the parent/field duplicate and the parent/laboratory duplicate.

4.9.1 Laboratory Duplicate

The results reported by the laboratory for duplicate sample analyses of sample 201205168BWMW-4V12N (460-40400-5) for both total and dissolved mercury, and the frequency of analysis, met the criteria for acceptable performance.

4.9.2 Field Duplicate

One parent/FD sample pair was validated: 20120516BWMW-8V7N/20120516BWMW-8V7FD. The parent/FD pair RPD results for total mercury (9.3%RPD)and for dissolved mercury (4.1%RPD) were acceptable.

4.10 Field Quality Control Samples

The results for all field quality control samples were evaluated. The field quality control samples included equipment blank (EB) and field duplicate (FD). The results of the EB analysis were discussed above (Section 4.5). The results of the FD analyses were discussed above (Section 4.9).

4.11 Target Compound List (TCL) Analytes

There were no non-compliance issues for samples with detected TCL analytes (i.e. mercury).

Appendix B
Table A
Summary of Validated Analysis Methods
OM&M 2012 Quarter 2 Report
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

TABLE A - SAMPLES ANALYZED								
Sample ID	Sample Date	Sample Type	SDG	Lab Sample ID	Project Sample	Validated	Total Mercury (EPA 245.1)	Dissolved Mercury (EPA 245.1)
20120516BWMW-8V7N	5/16/2012	Normal	460-40400-1	460-40400-1	Y	Y	X	X
20120516BWMW-8V7FD	5/16/2012	Field Duplicate	460-40400-1	460-40400-2	Y	Y	X	X
20120516BWMW-1V6.25N	5/16/2012	Normal	460-40400-1	460-40400-3	Y	Y	X	
20120516BWMW-2V7N	5/16/2012	Normal	460-40400-1	460-40400-4	Y	Y	X	
20120516BWMW-4V12N	5/16/2012	Normal	460-40400-1	460-40400-5	Y	Y	X	X
20120516BWMW-4V12MS	5/16/2012	MS	460-40400-1	460-40400-5MS	Y	Y	X	X
20120516BWMW-4V12MD	5/16/2012	MSD	460-40400-1	Not analyzed	Y	Y	*	*
20120516BWMW-4V12N	5/16/2012	Lab Duplicate	460-40400-1	460-40400-5DU	Y	Y	X	X
20120516VVEB	5/16/2012	EB	460-40400-1	460-40400-6	Y	Y	X	
20120517VVEV	5/17/2012	Normal	460-40404-1	460-40404-1	Y	N	X	
20120517BWMW-3	5/17/2012	Normal	460-40404-1	460-40404-2	Y	N	X	
20120517BWMW-6	5/17/2012	Normal	460-40404-1	460-40404-3	Y	N	X	
20120517BWMW-5	5/17/2012	Normal	460-40404-1	460-40404-4	Y	N	X	
20120517BWMW-7	5/17/2012	Normal	460-40404-1	460-40404-5	Y	N	X	

MS=matrix spike, MSD=matrix spike duplicate, EB=equipment blank

*MSD not analyzed (not required by method)

Note: Dissolved mercury was only analyzed for if detectable results were reported for the Total analysis.

Appendix B
Table B
Summary of DAR Aqueous Criteria
OM&M 2012 Quarter 2 Report
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

Mercury (EPA 245.1) Total and Dissolved	
Data Completeness, Holding Times, Preservation, & Solids Percentage	Cooler temp < 4 C. Holding Time Hg < 28 days.
Matrix Spike	MS: 1 per 20 project samples or each preparation batch. Recoveries within lab limits. Spike Recovery limits 70-130%
Lab Control Sample	LCS: 1 per 20 project samples or each preparation batch. LCS limits within 85-115%.
Blanks	CC Blank Conc < 3xLDL. Method blanks: 1 per 20 project samples. No TCL (mercury) detected in MB or EB.
Lab Duplicate	Lab Duplicate: 1 per analytical batch. Lab Duplicate %RPD=20
Reported Quantitation Limits	
CRDL Standard	CRDL results btw 70-130%
Duplicate	RPD < 35% or Absolute Diff < 2 RL when samp/dup value < 5x RL
Serial Dilution	Performed on samples of a similar matrix or 1 per 20 samples. %D ≤ 10% conc ≥ 25xLDL (EPA 245.1).

RT = Retention Time
TCL = Target Compound
List

Appendix B
Data Usability Report / Quality Assurance Review :
2012 Quarter 3 Groundwater Sampling
August 13-16, 2012

1.0 Introduction

This report documents the data usability report, quality assurance review, and data validation results of samples collected from the Ventron/Velsicol Superfund Site OU-1 (OU-1) located in Wood-Ridge and Carlstadt, New Jersey (the Site). The sampling event was conducted and is being reported in accordance with the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E, Subchapter 4) (NJDEP, 2009). A summary of the number of samples is presented in the *Sample Sets* (Section 3).

The data usability report, quality assurance review, and data validation were conducted to verify that all project quality control requirements were met, and that the quality of the data is sufficient to support its intended purpose. Data validation and assignment of validation qualifiers was according to:

- U.S. Environmental Protection Agency's (USEPA's) Region 2 Standard Operating Procedure (SOP) HW-24 "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B" (USEPA 2006).
- USEPA's Region 2 SOP HW-2 "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3 (SOP Revision 13)" (USEPA 2006).

The results of the quality assurance review are presented herein and summarized in **Tables A and B**. No data validation criteria non-conformance was identified and so data validation report tables C through K are not required to be attached to this report.

2.0 Data Validation Procedures

The data validation and quality assurance review included performance of a completeness audit and a review of the following parameters, where applicable: holding times, sample preservation, calibration results, trip blank (TB) analyses, field blank (FB) analyses, method (preparation) blank analyses, matrix spike (MS) and matrix spike duplicate (MSD) analyses, laboratory control sample (LCS) analyses, laboratory duplicate analyses, and field duplicate (FD) pair analyses, reporting limits, and analytical linear range. In performing the data validation, the raw data were spot-checked in accordance with the USEPA Region 2 and NJDEP SOP to evaluate whether there were any transcription errors. Data qualifiers would have been assigned during the quality assurance review if applicable control limits were not met, in accordance with USEPA Region 2 and/or NJDEP SOPs.

The following laboratory deliverables were reviewed during the data validation process:

- Chain-of-custody documentation to verify completeness of the data
- Case narratives discussing analytical problems (if any) and procedures
- Samples preparation logs or laboratory summary results forms to verify analytical holding times
- Results for initial calibration verification and continuing calibration verification to assess instrument performance
- Results for initial calibration blanks, continuing calibration blanks, and method (preparation) blanks to check for laboratory contamination
- Results from MS/ analyses and LCS analysis to evaluate analytical accuracy
- Results for applicable matrix spike duplicate (MSD) results and laboratory duplicate results to check analytical precision
- Results for TBs and FBs to check for sample contamination or cross-contamination during sample handling, collection, and shipping
- Results for applicable FD pair results to check total precision of the sampling and analysis process.
- Method detection limits (MDLs) to verify that reporting limit (RL) requirements were met.

Results of these quality assurance/quality control (QA/QC) procedures and data qualifiers applied during validation are discussed under the *Data Quality Assessment* section below. In addition, results for all applicable field quality control samples were reviewed. These results listed below provide additional information in support of the data usability report and quality assurance review:

- FD results to evaluate sampling overall precision;
- FB results to evaluate potential field contamination; and,
- TB results to evaluate potential sample contamination.

3.0 Sample Sets

Sample analysis was conducted by TestAmerica, Inc. for all groundwater samples. Table A summarizes number of samples and duplicates collected.

3.1 Analytical Methods

Table A summarizes the analysis methods performed on each sample.

3.2 Sample Delivery Groups

Two of the three sample delivery groups (SDGs) were validated as part of the Quarterly Report 3. The data packages contained all documentation and data necessary to conduct the data usability report, quality assurance review, and data validation. The other SDG was not validated, but the Case Narratives was reviewed for any performance issues reported by the laboratory.

3.3 Data Acceptability Report

The Data Acceptability Report (DAR) was conducted to monitor laboratory performance with respect to contract issues and methods requirements. The project requirements were that 50% of the collected data shall be validated according to NJDEP and USEPA Region 2 SOPs. A total of 23 samples, two field duplicates, three field blanks, three trip blanks, and two MS/MSD sample pairs were collected and analyzed with 8 samples selected by Parsons for laboratory filtration and analysis of dissolved arsenic and 3 samples selected by Parsons for laboratory filtration and analysis of dissolved mercury. Two SDGs (460-43507-1 and 460-43656-1) were selected for validation due to having >50% of the samples, presence of a field duplicate, and one MS/MSD sample pair. The validated SDGs contained a total of 16 samples, three equipment blanks (EBs), one trip blank (TB), and one field duplicate.

The USEPA Region 2 criteria are summarized in **Table B**.

For the remaining SDG (460-43655-1, rev.1), the case narrative was reviewed for any notable non-compliance issues reported by the laboratory. No data quality non-compliance issues were reported by the laboratory.

4.0 Data Quality Assessment (DQA)

The SDGs that were validated are discussed below. The laboratory data were evaluated in terms of completeness, holding times, preparation blanks, quantitative limits, CRDL check, accuracy, precision, and field quality control samples.

4.1 Completeness

The results reported by the laboratory were 100-percent usable; no sample results were rejected. Trip blank 20120815VV-TB (lab ID 460-43655-9) was not listed on COC record, but was analyzed for benzene using method EPA 8260B.

4.2 Holding Time

All samples were received in good condition and within the technical holding time for all analytes for each analytical method.

4.3 Initial Calibration Verification (ICV)

ICV was completed at the appropriate frequency, as required. All ICVs associated with the sample analyses met the applicable criteria for acceptable performance

4.4 Continuing Calibration Verification (CCV)

CCVs are used to verify the validity of the initial instrument. CCVs were completed at the appropriate frequency, as required. All CCVs met the criteria for acceptable performance.

4.5 Initial and Continuing Calibration Blank, Preparation Blank, and Field Blank Analyses

All initial calibration blanks, continuing calibration blanks, method (preparation) blanks, and field blanks (TBs and FBs) met the criteria for acceptable performance.

4.6 Quantitative Limits

The quantitative limits for all methods analyses met acceptable performance for each analysis method and matrix.

4.7 Contract-Required Detection Limit (CRDL) Check

CRDL checks met acceptable performance criteria

4.8 System Monitoring

System monitoring compounds (surrogate) recovery met acceptable performance criteria.

4.9 Internal Standard

Internal standard compounds recovery met acceptable performance criteria.

4.10 Accuracy

The accuracy of the analytical results is evaluated in the following sections in terms of analytical bias (MS and LCS recoveries).

4.10.1 Matrix Spike Recoveries

MS samples are used to determine laboratory performance for the sample matrix under analysis. MS analyses were completed at the required frequency and the MS recovery criteria for acceptable performance were met for each analyte for all analytical methods. Sample 20120816BW-MW1V9.0N (lab ID 460-43656-4) was used for MS (and MSD) analyses for benzene. Sample 20120813CF-MW2V15.0N2012 (lab ID 460-43507-4) was selected by the laboratory and used for MS analysis for total arsenic. Sample 20120814CF-MW3V12.0N (lab ID 460-43507-7) was selected by the laboratory and used for MS analysis for total mercury.

4.10.2 Laboratory Control Sample Recoveries

LCSs are used to monitor laboratory efficiency for the analysis of a standard matrix that is similar to the samples. The LCS recovery criteria for acceptable performance were met for each analytes for all analytical methods.

4.10.3 Serial Dilution

For methods EPA 200.8 (metals) and EPA 245.1 (mercury), serial dilutions are used to monitor laboratory performance of a 5-fold dilution of a project sample and spiked with a known concentration. Serial dilution recovery criteria for acceptable performance are %D 10% conc $\geq 25 \times$ DL (Hg) and 10x IDL (metals) for 5-fold dilution, and all serial dilution %D were acceptable. Samples 20120813CF-MW2V15.0N2012 (lab ID 460-43507-4) and 20120816BW-MW1V9.0N (lab ID 460-43656-4) were used for serial dilution analysis for total arsenic. Samples 20120814CF-MW3V12.0N (lab ID 460-43507-7) and 20120816BW-MW1V9.0N (lab ID 460-43656-4) were used for serial dilution analysis for total mercury.

4.11 Precision

Analytical precision is determined by evaluating the relative percent difference (RPD) of the parent/laboratory duplicate and, for method EPA 8260B (benzene) only, the MS/MSD pair. The results reported by the laboratory for duplicate sample analyses for total arsenic, and the frequency of analysis, met the criteria for acceptable performance. Samples 20120813CF-MW2V15.0N2012 (lab ID 460-43507-4) and 20120816BW-MW1V9.0N (lab ID 460-43656-4) were used for laboratory duplicate analysis for total arsenic. Samples 20120814CF-MW3V12.0N (lab ID 460-43507-7) and 20120816BW-MW1V9.0N (lab ID 460-43656-4) were used for laboratory duplicate analysis for total mercury. Sample 20120816BW-MW1V9.0N (lab ID 460-43656-4) was used for MS/MSD analyses for benzene.

Total precision of the sampling and analysis process was evaluated using the RPD of the parent /FD sample pair. The following two field duplicate pairs were collected; 20120815CF-MW8V14.0N/20120815CF-MW8V14.0FD and 20120816BW-MW1V9.0N/20120816BW-MW1V9.0FD. The results for field duplicate pair 20120816BW-MW1V9.0N/20120816BW-MW1V9.0FD were validated and the RPD results for benzene, total arsenic, and total mercury were acceptable.

4.12 Field Quality Control Samples

The results for all field quality control samples were evaluated. The field quality control samples included TBs, FBs, and FDs. The results of the TB and FB analyses were discussed above (Section 4.5). The results of the FD analyses were discussed above (Section 4.11).

4.13 Target Compound List (TCL) Analytes

There were no non-compliance issues for samples with detected TCL analytes.

Appendix B
Table A
Summary of Validated Analysis Methods
Quarterly Report 3
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

TABLE A: SAMPLE SUMMARY

Sample ID	Sample Date	Sample Type	Lab Sample ID	Validated	Benzene (EPA 8260B)	Total Arsenic (EPA 200.8)	Total Mercury (EPA 245.1)	Dissolved Arsenic (EPA 200.8)	Dissolved Mercury (EPA 245.1)
20120813BW-MW7V8.0N	8/13/2012	Normal	460-43507-1	X	X	X	X	X	
20120813BW-MW5V13.0N	8/13/2012	Normal	460-43507-2	X	X	X	X	X	
20130813CF-MW1V12.0N	8/13/2012	Normal	460-43507-3	X	X	X	X	X	
20120813CF-MW2V15.0N	8/13/2012	Normal	460-43507-4	X	X	X	X	X	
20120813VV-FB	8/13/2012	Field Blank	460-43507-5	X	X	X	X		
20120814VV-FB	8/14/2012	Field Blank	460-43507-6	X	X	X	X		
20120814CF-MW3V12.0N	8/14/2012	Normal	460-43507-7	X	X	X	X		
20120814CF-MW4V13.0N	8/14/2012	Normal	460-43507-8	X	X	X	X	X	
20120814CF-MW5V13.0N	8/14/2012	Normal	460-43507-9	X	X	X	X		
20120814CF-MW6V13.0N	8/14/2012	Normal	460-43507-10	X	X	X	X		
Trip Blank	8/13/2012	Trip Blank	460-43507-13	X	X				
20120816CF-MW9V14.0N	8/16/2012	Normal	460-43656-1	X	X	X	X		
20120816BW-MW3V12.0N	8/16/2012	Normal	460-43656-2	X	X	X	X	X	
20120816BW-MW2V8.0N	8/16/2012	Normal	460-43656-3	X	X	X	X	X	
20120816BW-MW1V9.0N	8/16/2012	Normal	460-43656-4	X	X	X	X		
20120816BW-MW1V9.0N	8/16/2012	Matrix Spike	460-43656-4	X	X	X	X		
20120816BW-MW1V9.0N	8/16/2012	Matrix Spike Duplicate	460-43656-4	X	X	X	X		
20120816BW-MW1V9.0N	8/16/2012	Lab Duplicate	460-43656-4	X	X	X	X		
20120816BW-MW1V9.0FD	8/16/2012	Field Duplicate	460-43656-5	X	X	X	X		
20120816BW-MW4V14.0N	8/16/2012	Normal	460-43656-6	X	X	X	X	X	X
20120816BW-MW8V8.0N	8/16/2012	Normal	460-43656-7	X	X	X	X		X
20120816VV-FB	8/16/2012	Normal	460-43656-8	X	X	X	X		X
20120816MW-10V6.0N	8/16/2012	Normal	460-43656-9	X	X	X	X		
20120816-MW11V12.0N	8/16/2012	Normal	460-43656-10	X	X	X	X		
Trip Blank	8/16/2012	Trip Blank	460-43656-11	X	X				
20120814CF-MW10-V14.0N	8/14/2012	Normal	460-43655-1		X	X	X		
20120814CF-MW7V13.5N	8/14/2012	Normal	460-43655-2		X	X	X		
20120815CF-MW11V12.0N	8/15/2012	Normal	460-43655-3		X	X	X	X	
20120815CF-MW12V13.0N	8/15/2012	Normal	460-43655-4		X	X	X	X	
20120815CF-MW8V14.0N	8/15/2012	Normal	460-43655-5		X	X	X	X	
20120815CF-MW8V14.0N	8/15/2012	Matrix Spike	460-43655-5		X	X	X		
20120815CF-MW8V14.0N	8/15/2012	Matrix Spike Duplicate	460-43655-5		X	X	X		
20120815CF-MW8V14.0N	8/15/2012	Lab Duplicate	460-43655-5		X	X	X		
20120815CF-MW8V14.0FD	8/15/2012	Field Duplicate	460-43655-6		X	X	X		
20120815BW-MW6V9.0N	8/15/2012	Normal	460-43655-7		X	X	X		
20120815VV-FB	8/15/2012	Field Blank	460-43655-8		X	X	X		
Trip Blank	8/15/2012	Trip Blank	460-43655-9		X				

Appendix B
Table B
Summary of DAR Aqueous Criteria
Quarterly Report 3
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

TABLE B: DATA QUALITY CRITERIA

	VOC (SW-846 8260B) and SW846 8260B by SIMs	Metals (EPA 200.8) Total and Dissolved, Mercury (EPA 245.1) Total
Data Completeness, Holding Times, Preservation, & Solids Percentage	Cooler temp < 4 °C. Samples holding time requirement < 7 days (<14 days if HCL preserved). Solids percentage >50%.	Cooler temp < 4 C. Holding Time Hg < 28 days, CN < 14 days, and all other metals < 180 days from collection.
System Monitoring Compounds	recoveries within limits (70 - 130%) or laboratory established limits	
Matrix Spike/Matrix Spike Duplicates	MS/MSD: 1 per 20 project samples. Recoveries within lab limits (or 70- 130%). RPD <22%	MS/MSD: 1 per 20 project samples or each preparation batch. Recoveries within lab limits. MS/MSD %RPDs <= 20%. Spike Recovery limits 75-125%
Lab Control Sample/Duplicate		LCS/LCSD: 1 per 20 project samples or each preparation batch. LCS limits within 80-120%.
Blanks	Method blanks: 1 per 20 project samples. No TCL or TICs detected in MB, TB, or EB.	CC Blank Conc < 3xIDL. Method blanks: 1 per 20 project samples. No TCL or TICs detected in MB, TB, or EB.
GC/MS Instrument Performance Check	Performance check every 12 hours per instrument. Ion abundances normalized to m/z 95.	
TCL Analytes	RRT within 0.06 RRT units of standard RRT in CV.4. Relative intensities of characteristic ions within ± 30% of reference MS.	
Tentatively Identified Compounds	No TCLs are listed as TIC. Ions in reference MS with relative intensity ≥10% present in sample MS. TIC and "best match" standard relative ion intensities agree within ± 20%.	

Appendix B
Table B
Summary of DAR Aqueous Criteria
Quarterly Report 3
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

	VOC (SW-846 8260B) and SW846 8260B by SIMs	Metals (EPA 200.8) Total and Dissolved, Mercury (EPA 245.1) Total
Reported Quantitation Limits	Quantitation limits adjusted to reflect sample dilutions and moisture.	
CRDL Standard		CRDL results btw 70-130%
GC/MS Initial Calibration	%RSD \leq 20%. Average RRFs $>$ 0.050.	$r^2 \geq 0.995$ CCV every 10 samps or 2 hours ICV/CCV %R btw 90-110%
GC/MS Continuing Calibration	CV performed for every 12 hours per instrument. %D \leq 20%. RRFs \geq 0.05.	
Internal Standards	IS areas of samples & blank within (- 50% to + 100%). RTs $<$ 30 seconds.	
Duplicate	All % RPD \leq 30%?	RPD $<$ 35% or Absolute Diff $<$ 2 RL when samp/dup value $<$ 5x RL
ICP Interference Check Sample (ICS)		ICS results within 80-120%.
Serial Dilution		Performed on samples of a similar matrix or 1 per 20 samples. %D \leq 10% conc \geq 25xDL (7470A/7471A) and 10x IDL (8010B) for 5-fold dilution.

RT = Retention Time
 TCL = Target
 Compound List

%D = Percent Deviation
 TIC = Tentatively Identified
 Compound

Appendix B

Data Usability Report / Quality Assurance Review:

2012 Quarter 4 Groundwater Sampling

October 1, 2012 through December 31, 2012

1.0 Introduction

This report documents the data usability report, quality assurance review, and data validation results of samples collected from the Ventron/Velsicol Superfund Site OU-1 (OU-1) located in Wood-Ridge and Carlstadt, New Jersey (the Site). The sampling event was conducted as part of ongoing OM&M activities and is being reported in accordance with the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E, Subchapter 4) (NJDEP, 2009). A summary of the number of samples is presented in the *Sample Sets* (Section 3).

The data usability report, quality assurance review, and data validation were conducted to verify that all project quality control requirements were met, and that the quality of the data is sufficient to support its intended purpose. Data validation and assignment of validation qualifiers was according to:

- USEPA's Region 2 SOP HW-2 "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3 (SOP Revision 13)" (USEPA 2006).

The results of the quality assurance review are presented herein and summarized in **Tables A and B**.

2.0 Data Validation Procedures

The data validation and quality assurance review included performance of a completeness audit and a review of the following parameters, where applicable: holding times, sample preservation, calibration results, equipment blank (EB) analyses, method (preparation) blank analyses, matrix spike (MS) analyses, laboratory control sample (LCS) analyses, laboratory duplicate analyses, and field duplicate (FD) pair analyses, reporting limits, and analytical linear range. In performing the data validation, the raw data were spot-checked in accordance with the USEPA Region 2 and NJDEP SOP to evaluate whether there were any transcription errors. Data qualifiers would have been assigned during the quality assurance review if applicable control limits were not met, in accordance with USEPA Region 2 and/or NJDEP SOPs.

The following laboratory deliverables were reviewed during the data validation process:

- Chain-of-custody documentation to verify completeness of the data
- Case narratives discussing analytical problems (if any) and procedures
- Samples preparation logs or laboratory summary results forms to verify analytical holding times

- Results for initial calibration verification and continuing calibration verification to assess instrument performance
- Results for initial calibration blanks, continuing calibration blanks, and method (preparation) blanks to check for laboratory contamination
- Results from MS analysis and LCS analysis to evaluate analytical accuracy
- Results for applicable matrix spike duplicate (MSD) results and laboratory duplicate results to check analytical precision
- Results for applicable FD pair results to check total precision of the sampling and analysis process.
- Method detection limits (MDLs) to verify that reporting limit (RL) requirements were met.

Results of these quality assurance/quality control (QA/QC) procedures and data qualifiers applied during validation are discussed under the *Data Quality Assessment* section below. In addition, results for all applicable field quality control samples were reviewed. These results listed below provide additional information in support of the data usability report and quality assurance review:

- FD results to evaluate sampling overall precision;
- EB results to evaluate potential field contamination; and,

3.0 Sample Sets

Sample analysis was conducted by TestAmerica, Inc. for all groundwater samples. **Table A** summarizes number of samples and duplicates collected.

3.1 Analytical Methods

Table A summarizes the analysis methods performed on each sample.

3.2 Sample Delivery Groups

Two sample delivery groups (SDGs) were validated as part of the Quarterly 4 Report. The data packages contained all documentation and data necessary to conduct the data usability report, quality assurance review, and data validation.

3.3 Data Acceptability Report

The Data Acceptability Report (DAR) was conducted to monitor laboratory performance with respect to contract issues and methods requirements. The project requirements were that 50% of the collected data shall be validated according to NJDEP and USEPA Region 2 SOPs. A total of 8 samples and one field duplicates were analyzed with one of them selected for laboratory filtration and analysis for dissolved mercury. Two SDGs (460-46959-1 and 460-47045-1) were

validated. The validated SDGs contained a total of 8 samples, one equipment blanks (EBs), and one field duplicates.

The USEPA Region 2 criteria are summarized in Table B.

4.0 Data Quality Assessment (DQA)

The SDGs that were validated are discussed below. The laboratory data were evaluated in terms of completeness, holding times, preparation blanks, quantitative limits, accuracy, precision, and field quality control samples.

4.1 Completeness

The results reported by the laboratory were 100-percent usable; no sample results were rejected.

4.2 Holding Time

All samples were received in good condition and within the technical holding time for all analytes for each analytical method.

4.3 Initial Calibration Verification (ICV)

ICV was completed at the appropriate frequency, as required. All ICVs associated with the sample analyses met the applicable criteria for acceptable performance.

4.4 Continuing Calibration Verification (CCV)

CCVs are used to verify the validity of the initial instrument. CCVs were completed at the appropriate frequency, as required. All CCVs met the criteria for acceptable performance.

4.5 Initial and Continuing Calibration Blank, Preparation Blank, and Field Blank Analyses

All initial calibration blanks, continuing calibration blanks, method (preparation) blanks, and field blanks (FB and EB) met the criteria for acceptable performance.

4.6 Quantitative Limits

The quantitative limits for all methods analyses met acceptable performance for each analysis method and matrix.

4.7 Accuracy

The accuracy of the analytical results is evaluated in the following sections in terms of analytical bias (MS and LCS recoveries).

4.7.1 Matrix Spike Recoveries

MS samples are used to determine laboratory performance for the sample matrix under analysis. The MS recovery met acceptable performance criteria for each analyte for all analytical methods.

4.7.2 Laboratory Control Sample Recoveries

LCSs are used to monitor laboratory efficiency for the analysis of a standard matrix that is similar to the samples. The LCS recovery criteria for acceptable performance were met for each analytes for all analytical methods.

4.7.3 Serial Dilution

For methods EPA 245.1 (mercury), serial dilutions are used to monitor laboratory performance of a 5-fold dilution of a project sample and spiked with a known concentration. Serial dilution recovery criteria for acceptable performance are $\%D \leq 10\%$ conc $\geq 25 \times DL$ (Hg) and $10 \times IDL$ (metals) for 5-fold dilution, and all serial dilution $\%D$ were acceptable.

4.8 Precision

Precision is determined by evaluating the relative percent difference (RPD) of the parent/field duplicate and the parent/laboratory duplicate. The results reported by the laboratory for duplicate sample analyses, and the frequency of analysis, met the criteria for acceptable performance.

One parent/FD sample pair was validated: 20121112BWMW3V11N and 20121112BWMW3V11FD. The parent/FD pair RPD results for mercury were acceptable.

4.9 Field Quality Control Samples

The results for all field quality control samples were evaluated. The field quality control samples included FBs, EBs, and FDs. The results of the FB and EB analyses were discussed above (Section 4.5). The results of the FD analyses were discussed above (Section 4.9).

Appendix B
Table A
Summary of Validated Analysis Methods
Quarter 4 Groundwater Sampling
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

Sample ID	Sample Date	Sample Type	SDG	Project Sample	Validated	Total Mercury (EPA 245.1)	Dissolved Mercury (EPA 245.1)
201211128WMW3V11N	11/12/2013	Normal	460-46959-1	Y	Y	X	
201211128WMW3V11FD	11/12/2013	Field Dup	460-46959-1	Y	Y	X	
201211128WMW4V12N	11/12/2013	Normal	460-46959-1	Y	Y	X	
201211128WMW4V12N	11/12/2013	MS	460-46959-1	Y	N	X	
201211128WMW5V12.5N	11/12/2013	Normal	460-46959-1	Y	Y	X	
20121112VVFB	11/12/2013	Field Blank	460-46959-1	Y	N	X	
20121113BWMW-1V7N	2/20/2012	Normal	460-47045-1	Y	Y	X	
20121113BWMW-2V7N	2/20/2012	Normal	460-47045-1	Y	Y		
20121113BWMW-6V9.5N	2/21/2012	Normal	460-47045-1	Y	Y	X	
20121113BWMW-7V7N	2/21/2012	Normal	460-47045-1	Y	Y	X	
20121113BWMW-8V7N	2/21/2012	Normal	460-47045-1	Y	Y	X	X
20121113VVEB	2/21/2012	EB	460-47045-1	Y	N	X	

Note: Dissolved mercury were only analyzed for if detectable results were reported for the Total analysis.

Appendix B
Table B
Summary of DAR Aqueous Criteria
Quarter 4 Groundwater Sampling
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

Metals (EPA 245.1) Total and Dissolved	
Data Completeness, Holding Times, Preservation, & Solids Percentage	Cooler temp < 4 C. Holding Time Hg < 28 days, CN < 14 days, and all other metals < 180 days from collection.
System Monitoring Compounds	
Matrix Spike/Matrix Spike Duplicates	MS/MSD: 1 per 20 project samples or each preparation batch. Recoveries within lab limits. MS/MSD %RPDs <= 20%. Spike Recovery limits 75-125%
Lab Control Sample/Duplicate	LCS/LCSD: 1 per 20 project samples or each preparation batch. LCS limits within 80-120%.
Blanks	CC Blank Conc < 3xIDL. Method blanks: 1 per 20 project samples. No TCL or TICs detected in MB, TB, or EB.
GC/MS Instrument Performance Check	
TCL Analytes	
Tentatively Identified Compounds	

Appendix B
Table B
Summary of DAR Aqueous Criteria
Quarter 4 Groundwater Sampling
Ventron/Velsicol Superfund Site OU-1
Wood-Ridge and Carlstadt, NJ

Metals (EPA 245.1) Total and Dissolved	
Reported Quantitation Limits	
CRDL Standard	CRDL results b/w 70-130%
GC/MS Initial Calibration	$r^2 \geq 0.995$ CCV every 10 samps or 2 hours ICV/CCV %R b/w 90-110%
GC/MS Continuing Calibration	
Internal Standards	
Duplicate	RPD < 35% or Absolute Diff < 2 RL when samp/dup value < 5x RL
ICP Interference Check Sample (ICS)	ICS results within 80-120%.
Serial Dilution	Performed on samples of a similar matrix or 1 per 20 samples. %D \leq 10% conc \geq 25xDL (7470A/7471A) and 10xIDL (6010B) for 5-fold dilution.

RT = Retention Time
 TCL = Target
 Compound List

Appendix C – Air Quality Monitoring in Wolf Warehouse Memorandum

TECHNICAL MEMORANDUM

January 30, 2013

To: Mr. Robert Casselberry
From: Chris Greene, Glenn Pacheco
Cc: Margaret Bazany, Ron Lantzy
Subject: August 2 to August 3, 2012 Indoor Air Sampling for Mercury at Wolf Warehouse

Introduction

This memorandum presents the approach and results for the post-remediation annual summer season air sampling for mercury performed at the Wolf Warehouse in Wood-Ridge, New Jersey. The sampling was performed from August 2 to 3, 2012. This is the third sampling event since the remediation was completed at the OU-1 Site in the summer of 2010 and the fifth sampling event overall. A history of the sampling at the Wolf Warehouse is as follows:

- Pre-Remediation – Summer Season – September 2008
- Pre-Remediation – Winter Season – February 2009
- Post-Remediation – Summer Season – September 2010
- Post-Remediation – Summer Season – August 2011
- Post-Remediation – Summer Season – August 2012

Air sampling was performed at the Wolf Warehouse building in accordance with the approved Undeveloped Area Remedial Action Workplan (RAW) for the Ventron/Velsicol Superfund Site. One of the requirements of the approved Undeveloped Area RAW is to perform air monitoring at the Wolf Warehouse in accordance with selected remedy “Soil Alternative 4” (S4) as presented in the ROD. During the initial pre-remediation sampling, one set of samples was collected in the summer and one set was collected in the winter commencing in the summer of 2008 as requested by the NJDEP. Per the Undeveloped Area RAW, after the first year of sampling, the program will continue with follow-up sampling on an annual basis (i.e., a set of mercury samples will be collected every year). The results of the initial winter and summer monitoring were used to determine the time of year for the annual sampling which targeted the season with the higher results. The summer season (September 2008) sampling results were found to be the higher during the initial year as documented in two Technical Memorandums previously submitted dated October 31, 2008 and March 24, 2009.

The indoor air sampling for mercury at the Wolf Warehouse is being driven primarily by vapor intrusion concerns, therefore, the air sampling program was designed and implemented in accordance with applicable requirements of the *New Jersey Department of Environmental Protection Vapor Intrusion Guidance* (October 2005; updated Tables March 2007).

Sampling Event Procedures

An initial building survey was performed in conjunction with the September 2008 sampling event and was updated prior to the February 2009 winter sampling. At the time of these surveys, the building was occupied and operating as a bulk paper warehouse as well as containing a cardboard display assembly operation. Additional building surveys were performed in conjunction with the September 2010 and August 2011 sampling events during which time the building had been vacated and its contents removed as part of the Developed Area RAW implemented in 2010. For the August 2012 event, the building was reoccupied and being used for carpet and area rug storage; therefore, another building survey was performed in conjunction with the current event to document any conditions that needed to be accounted for during the air sampling. Example conditions include opening or closing certain vents, windows or doors and/or whether the building's ventilation system was on/off. Information collected from the building surveys was used to develop the monitoring locations and the expected building conditions prior to and during the sampling. A completed survey form is contained in **Appendix A**.

The target compound for the indoor air sampling is total atmospheric mercury consisting of both gas-phase and particulate concentrations. The measured mercury levels were compared to the New Jersey indoor reference value for mercury of 1000 nanograms per cubic meter (ng/m^3). Note that sample concentrations in previous air quality monitoring events were compared to a New Jersey Indoor Air Screening Level of $300 \text{ ng}/\text{m}^3$. NJDEP released updated vapor intrusion guidance in January 2013 that increased the indoor reference value.

The mercury sampling methodology used was the *Frontier Geosciences Sorbent Total Mercury Method – Total Gaseous Mercury Capture on Iodated Carbon (FGS-009)*. This is a peer-reviewed method developed by Frontier Geosciences, Inc., an analytical laboratory that specializes in low-level mercury analysis. This method was used in previous sampling for mercury in and around the Wolf Warehouse. The method collects gas-phase and particulate-phase atmospheric mercury species by trapping on an iodated carbon matrix. After sampling, the mercury is leached off the iodated carbon using a hot-refluxing $\text{HNO}_3/\text{H}_2\text{SO}_4$ solution, followed by further oxidation using a BrCl solution. Aliquots of the digest are analyzed via *USEPA Method 1631 - Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry*.

Based on the prior sampling, the building survey, and weather conditions for the sampling period, four sampling locations were selected: three indoor locations and one outdoor. The sample locations are shown on **Figure 1** and were named as follows:

- NE-1 = northeast corner of building (adjacent to loading dock)
- CN-2 and CN-D-3 = duplicate pair sampled in central location of warehouse
- SW-4 = southwest corner of building (near stairs to door)
- SW-O-5 = Outside sample collected near the southwest corner of building.

The outdoor sampling location, near the southwest corner of the building, was selected based on forecasted wind conditions at the time of sampling. This location was upwind of the building for the expected winds from the southwest during the sampling event. Meteorological data from Teterboro Airport and weather forecast information was obtained from the National Weather Service website the morning of the sampling event to determine the location for upwind ambient air sampling. Concurrent meteorological data during the 24-hour sampling period was obtained from nearby Teterboro Airport for aid in interpretation of sampling results. Graphs of the weather data are presented in **Appendix B**.

Sampling was started between 11:43 am to 12:00 pm on August 2, 2012 and continued for 24 hours until August 3, 2012. The samples were collected in the breathing zone approximately four feet above ground/floor surfaces.

Indoor air quality (IAQ) measurements of temperature, relative humidity, and barometric pressure were performed at each of the four sampling locations. These measurements were made with a TSI Model No. 8554 IAQ meter.

Sample custody and documentation procedures were followed as described in the sampling method. The analytical holding time for this method is specified as "indefinite" once the sample has been collected and sealed on the sampling media. Samples were shipped by an overnight express service to the laboratory upon the completion of sampling.

Quality assurance (QA) for the sampling event consisted of pump flow calibrations, pump flow checks, and quality control (QC) samples. Sampling flow checks were performed immediately prior to, during, and after each sampling event. QC samples consisted of one field duplicate and a field blank, as well as laboratory QC samples, as prescribed by the method. QC samples were analyzed for total atmospheric mercury using the same methods as for the routine samples.

Building Survey Results

Prior to being vacated during the Developed Area Remedial Action in 2010, the Wolf Warehouse building at 3 Ethel Blvd was being used to store rolls of paper and operate a corrugated box and display manufacturing facility. The building dimensions are approximately 250 feet by 250 feet resulting in a total footprint area of 62,500 square feet. The building is situated such that the front is facing the northeast (along Ethel Blvd.). The southeast and southwest sides of the building form part of the border of the OU-1 Undeveloped Area in its northern portion.

The front of the building contains several loading dock bays for deliveries and pick-ups. The back of the building has loading dock bays for delivery/pick-up by rail car. The building's outside walls are constructed of pre-fabricated concrete sections and the building sits on a solid concrete foundation three feet above grade.

The building was observed to be divided into two sections where previously different types of activities take place. The east side was previously used to store rolls of paper, while most of the

west half was previously used to assemble cardboard display units and various types of display boxes. The back half of the west side previously contained a mix of box assembly supplies and paper rolls. At the time of the sampling in August 2011, the building was unoccupied (no employees) with the previous contents removed. During the August 2012 sampling, the building was reoccupied and being used for area rug and carpet storage.

A general inspection of the floor did not identify major cracks in the floor that would act as pathways for vapor intrusion. At the back of the building, there were two sumps with stairs leading to doors that open at grade. The doors were observed not to form an air tight seal in the closed position. As a result, these doors are believed to be the most viable pathway for vapors from the outside or soil to migrate into the building and this was accounted for when determining the sampling locations.

Environmental conditions during the survey and sampling were found to be typical of a warehouse. The air temperature was generally close to or a few degrees below the levels found outside (outdoor temperatures generally ranged from the low-70s to low-90s °F over the sampling period; 83 to 86 °F during sampling QC checks). Based on observation, air movement in most of the building can be characterized as stagnant. Outside, winds started out as calm on August 2 before picking up from the west and southwest later in the day, and becoming light and variable the morning of August 3. No rain occurred during the sampling period.

The survey did not reveal any material or operation that would interfere with the mercury sampling.

Sampling Results and Recommendation

A summary of the air sampling results and IAQ measurements are presented in the table below. The laboratory results are presented in **Appendix C** and sampling data calculations are in **Appendix D**.

Sample Location	Mercury Conc.	Avg. Temperature	Avg. Relative Humidity	Avg. Barometric Pressure
Units:	(ng/m ³)	(F)	(%)	(mm Hg)
NE-1	25	81.9	68.8	760.1
CN-2	36	82.1	65.3	760.1
CN-D-3 (Duplicate)	43	82.1	65.3	760.1
SW-4	131	83.1	64.8	760.1
SW-O-5 (Outdoor)	3	84.1	61.0	760.1
Indoor Averages	64	82.4	66.3	760.1
Field Blank	ND*	NA	NA	NA

Mr. Robert Casselberry

January 30, 2013

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ND = Not Detected; NA = Not Applicable

* Method Detection Limit (MDL) = 0.34 ng Hg/trap (approximately 0.05 ng/m³)

The indoor mercury concentration results ranged from 25 to 131 ng/m³, with an average of 64 ng/m³ (not including duplicate), compared to a lower outside concentration of 3 ng/m³. These results are all below the NJDEP Vapor Intrusion Indoor Air Screening Levels of 1000 ng/m³. Note that sample concentrations in previous air quality monitoring events were compared to a NJDEP Vapor Intrusion Indoor Air Screening Level of 300 ng/m³. The 2012 summer season indoor average of 64 ng/m³ is lower than the last two summer season indoor averages of 85 ng/m³ in 2010 and 115 ng/m³ in 2011.

Consistent with the results reported last year, the August 2012 outdoor mercury concentration of 3 ng/m³ (4 ng/m³ in August 2011) is an order of magnitude lower in comparison to the outdoor concentrations of 40 ng/m³ sampled in September 2010 and 91 ng/m³ sampled in September 2008.

The duplicate pair sampled at the central location in the warehouse revealed mercury concentrations of 36 and 43 ng/m³, a difference of 7 ng/m³ (percent difference of 17.7 %).

A field blank mercury trap submitted for analysis revealed no detectable concentration of mercury.

Care must be taken in interpreting the results of a single indoor air quality sampling event. The samples are collected over a relatively short duration (24-hours) and represent only the conditions during that interval. Indoor pollutant concentrations can change rapidly due to changes in air movement, weather conditions or other physical movement in an area.

Attachments:

Figure 1 – Sampling Location Plan

Appendix A – Building Survey Form

Appendix B – Meteorological Data

Appendix C – Laboratory Sample results

Appendix D – Field Sampling Data and Calculations

Appendix C

TECHNICAL MEMORANDUM

October 24, 2012

To: Mr. Robert Casselberry
From: Chris Greene, Glenn Pacheco
Cc: Margaret Bazany, Ron Lantzy
Subject: August 2 to 3, 2012 Indoor Air Sampling for Mercury at Wolf Warehouse

Introduction

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Appendix C

Service website the morning of the sampling event to determine the location for upwind ambient air sampling. Concurrent meteorological data during the 24-hour sampling period was obtained from nearby Teterboro Airport for aid in interpretation of sampling results. Graphs of the weather data are presented in **Appendix B**.

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Appendix C

employees) with the previous contents removed. During the August 2012 sampling, the building was reoccupied and being used for area rug and carpet storage.

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Appendix C

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Attachments:

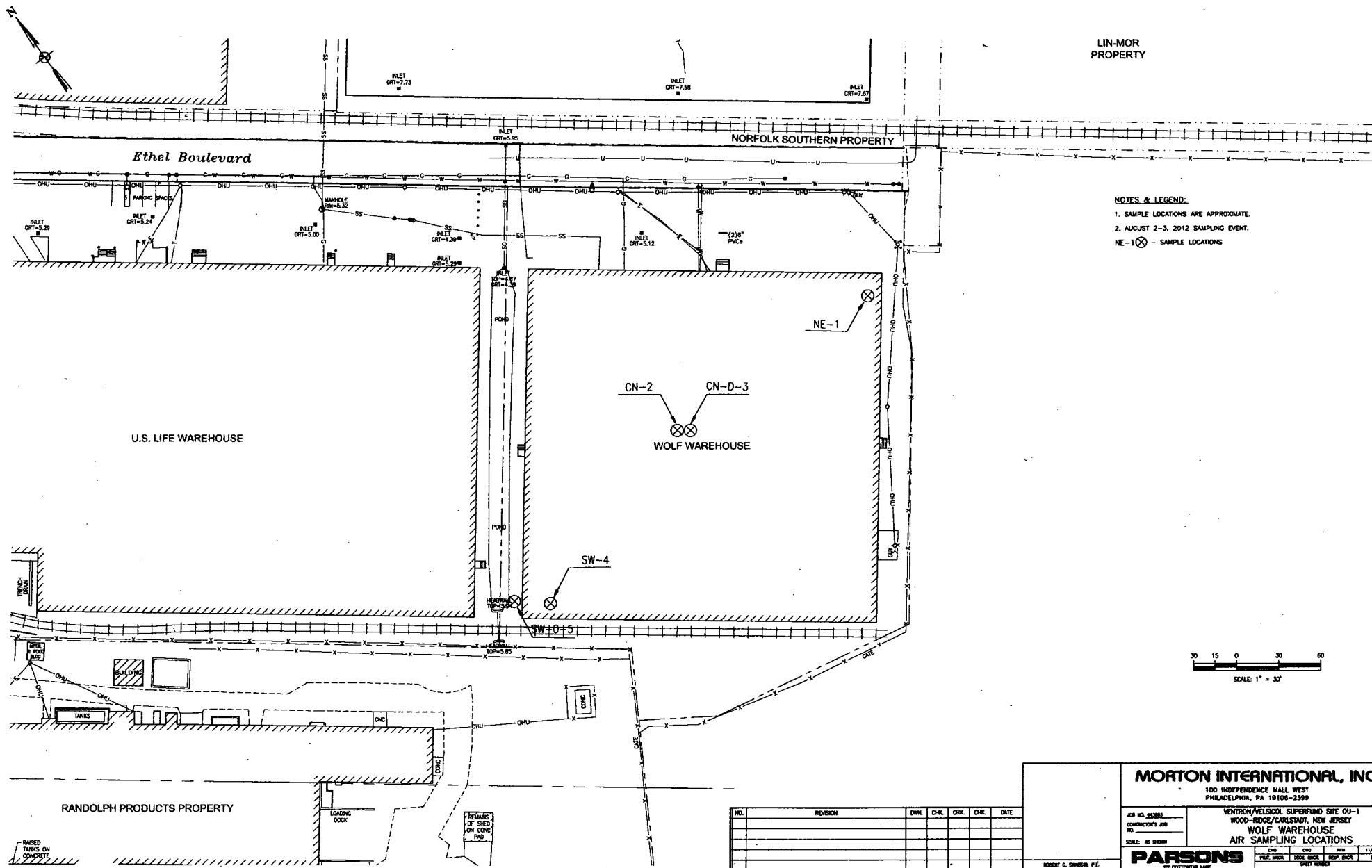
Figure 1 – Sampling Location Plan

Appendix A – Building Survey Form

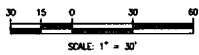
Appendix B – Meteorological Data

Appendix C – Laboratory Sample results

Appendix D – Field Sampling Data and Calculations



NOTES & LEGEND:
 1. SAMPLE LOCATIONS ARE APPROXIMATE.
 2. AUGUST 2-3, 2012 SAMPLING EVENT.
 NE-1 ⊗ - SAMPLE LOCATIONS



MORTON INTERNATIONAL, INC.

100 INDEPENDENCE MALL WEST
 PHILADELPHIA, PA 19106-2399

VENTRON/VELSICOL SUPERFUND SITE 00-1
 WOOD-RIDGE/CARLSBAD, NEW JERSEY
 WOLF WAREHOUSE
 AIR SAMPLING LOCATIONS

NO.	REVISION	DATE	BY

PARSONS
 300 COTTAGE LANE
 SCARSDALE, NY 11767-1148

ROBERT C. SHIMMEL, P.E.
 NEW JERSEY PROFESSIONAL ENGINEER NO. 34222

Appendix C

Appendix A – Building Survey Form



New Jersey Department of Environmental Protection

INDOOR AIR BUILDING SURVEY
and SAMPLING FORM

Preparer's name: J. Derick Date: 8/2/12
Preparer's affiliation: Persons Phone #: 570 977 6464
Site Name: OU-1: WW Hg Air Sampling Case #: _____

Part I - Occupants

Building Address: 3 Ethyl Blvd, Wood-Ridge, NJ
Property Contact: Joe Nicoletti Owner / Renter / other PM
Contact's Phone: home () _____ work () _____ cell (201) 870 2267
of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 8

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial
Describe building: Spa, 300' x 300' x 40' Year constructed: 1975
Sensitive population: day care / nursing home / hospital / school / other (specify): None
Number of floors below grade: 0 (full basement / crawl space / slab on grade)
Number of floors at or above grade: 2
Depth of basement below grade surface: N/A ft. Basement size: N/A ft²
Basement floor construction: concrete / dirt / floating / stone / other (specify): N/A
Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____
Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No
Type of heating system (circle all that apply):
hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify): _____
Type of ventilation system (circle all that apply):
central air conditioning mechanical fans bathroom ventilation fans
individual air conditioning units kitchen range hood fan outside air intake
other (specify): _____
Type of fuel utilized (circle all that apply):
Natural gas / electric / fuel oil / wood / coal / solar / kerosene None
Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No / N/A

Is there a whole house fan? Yes No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? Yes / No active / passive

Sub-slab vapor/moisture barrier in place? Yes / No

Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): Adjacent to a remediated Hg site

Other stationary sources nearby (gas stations, emission stacks, etc.): Boiler and process stacks located approximately 0.25 miles East and 0.50 miles South

Heavy vehicular traffic nearby (or other mobile sources): Rt 17 is approximately 0.50 miles West. Truck traffic with loads, etc.

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans		<u>N/A</u>
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		<u>N/A</u>
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		<u>N/A</u>

Part V – Miscellaneous ItemsDo any occupants of the building smoke? Yes / No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes / No If yes, when? _____Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when _____ and where? _____

Part VI – Sampling InformationSample Technician: J. Davis Phone number: (520) 977-6466Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil GasSampler Type: Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): _____Analytical Method: TO-15 / TO-17 / other: F6S-009 Cert. Laboratory: Parlier

Sample locations (floor, room):

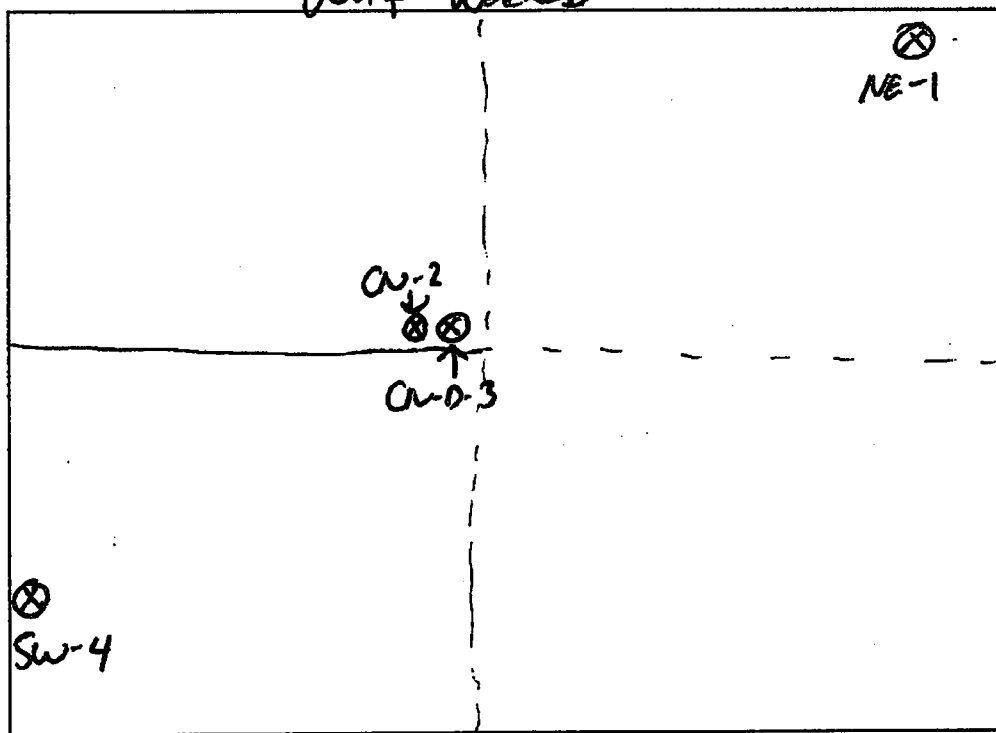
Field ID # NE - 1 Field ID # CN - 2 / CN - 0-3Field ID # SW - 4 Field ID # SW - 0-5Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

↑ N

Provide Drawing of Sample Location(s) in Building

Wolf house



SW-0-5

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes No

Describe the general weather conditions: Sunny, 90's, SW @ 5-10 mph

Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

No additional information

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)

Appendix C

Appendix B – Meteorological Data

Appendix C

History for Teterboro, NJ

Thursday, August 2, 2012

Thursday, August 2, 2012

« Previous Day

August 2 2012 View

Next Day »

Daily Weekly Monthly Custom

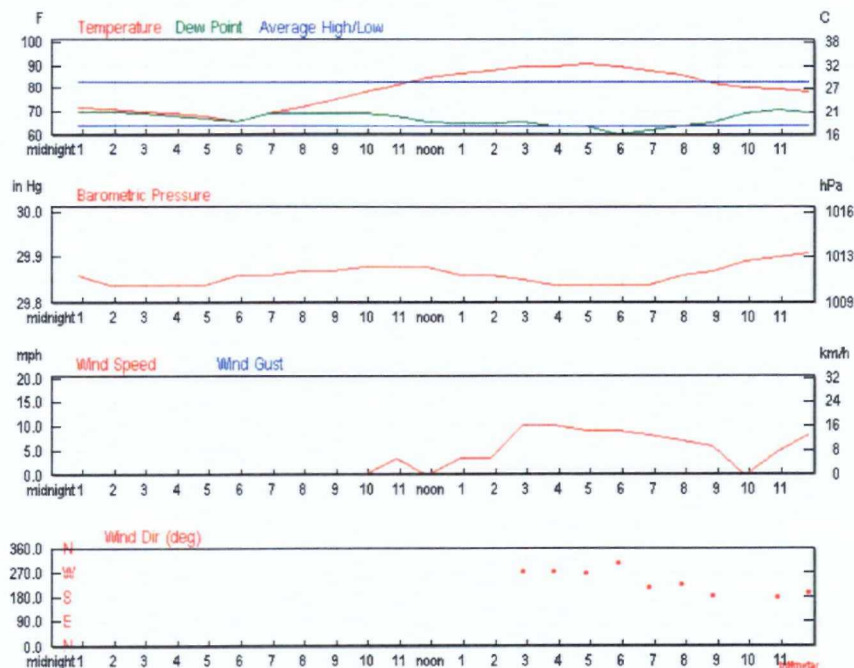
	Actual	Average	Record
Temperature			
Mean Temperature	78 °F	-	
Max Temperature	91 °F	83 °F	100 °F (2002)
Min Temperature	66 °F	64 °F	55 °F (1998)
Cooling Degree Days	14		
Growing Degree Days	28 (Base 50)		
Moisture			
Dew Point	67 °F		
Average Humidity	69		
Maximum Humidity	100		
Minimum Humidity	37		
Precipitation			
Precipitation	0.00 in	-	- ()
Sea Level Pressure			
Sea Level Pressure	29.86 in		
Wind			
Wind Speed	2 mph (WSW)		
Max Wind Speed	10 mph		
Max Gust Speed	-		
Visibility	9 miles		
Events	Fog		

Averages and records for this station are not official NWS values.
Click here for data from the nearest station with official NWS data (KNYC).

T = Trace of Precipitation, MM = Missing Value

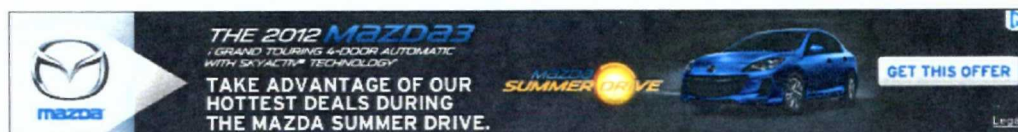
Source: NWS Daily Summary

Seasonal Weather Averages



Certify This Report

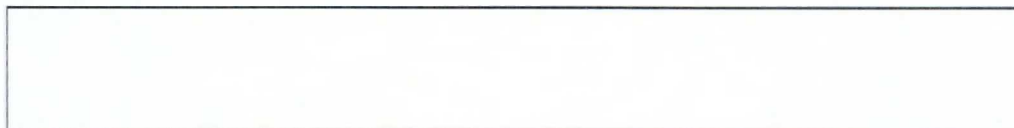
Appendix C



Hourly Observations

Time (EDT)	Temp.	Heat Index	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Conditions
12:51 AM	72.0 °F	-	70.0 °F	93%	29.86 in	10.0 mi	Calm	Calm	-	N/A		Clear
1:51 AM	71.1 °F	-	70.0 °F	96%	29.84 in	10.0 mi	Calm	Calm	-	N/A	Fog	Shallow Fog
2:51 AM	70.0 °F	-	69.1 °F	97%	29.84 in	10.0 mi	Calm	Calm	-	N/A	Fog	Shallow Fog
3:51 AM	69.1 °F	-	68.0 °F	96%	29.84 in	8.0 mi	Calm	Calm	-	N/A	Fog	Shallow Fog
4:51 AM	68.0 °F	-	66.9 °F	96%	29.84 in	10.0 mi	Calm	Calm	-	N/A	Fog	Shallow Fog
5:51 AM	66.0 °F	-	66.0 °F	100%	29.86 in	5.0 mi	Calm	Calm	-	0.00 in	Fog	Shallow Fog
6:51 AM	69.1 °F	-	69.1 °F	100%	29.86 in	5.0 mi	Calm	Calm	-	N/A	Fog	Shallow Fog
7:51 AM	72.0 °F	-	69.1 °F	91%	29.87 in	8.0 mi	Calm	Calm	-	N/A		Clear
8:51 AM	75.0 °F	-	69.1 °F	82%	29.87 in	8.0 mi	Calm	Calm	-	N/A		Clear
9:51 AM	79.0 °F	-	69.1 °F	72%	29.88 in	8.0 mi	Calm	Calm	-	N/A		Clear
10:51 AM	82.0 °F	84.9 °F	68.0 °F	62%	29.88 in	10.0 mi	Variable	3.5 mph	-	N/A		Clear
11:51 AM	84.9 °F	87.1 °F	66.0 °F	53%	29.88 in	10.0 mi	Calm	Calm	-	N/A		Clear
12:51 PM	87.1 °F	88.9 °F	64.9 °F	48%	29.86 in	10.0 mi	Variable	3.5 mph	-	N/A		Clear
1:51 PM	88.0 °F	89.6 °F	64.9 °F	46%	29.86 in	10.0 mi	Variable	3.5 mph	-	N/A		Partly Cloudy
2:51 PM	90.0 °F	92.4 °F	66.0 °F	45%	29.85 in	10.0 mi	West	10.4 mph	-	N/A		Scattered Clouds
3:51 PM	90.0 °F	91.3 °F	64.0 °F	42%	29.84 in	10.0 mi	West	10.4 mph	-	N/A		Partly Cloudy
4:51 PM	91.0 °F	92.6 °F	64.0 °F	41%	29.84 in	10.0 mi	West	9.2 mph	-	N/A		Scattered Clouds
5:51 PM	90.0 °F	89.7 °F	60.1 °F	37%	29.84 in	10.0 mi	NW	9.2 mph	-	N/A		Clear
6:51 PM	88.0 °F	88.4 °F	62.1 °F	42%	29.84 in	10.0 mi	SW	8.1 mph	-	N/A		Clear
7:51 PM	86.0 °F	87.3 °F	64.0 °F	48%	29.86 in	10.0 mi	SW	6.9 mph	-	N/A		Clear
8:51 PM	82.9 °F	84.6 °F	64.9 °F	54%	29.87 in	10.0 mi	South	5.8 mph	-	N/A		Clear
9:51 PM	81.0 °F	84.1 °F	69.1 °F	67%	29.89 in	10.0 mi	Calm	Calm	-	N/A		Clear
10:51 PM	80.1 °F	83.6 °F	71.1 °F	74%	29.90 in	10.0 mi	South	4.6 mph	-	N/A		Clear
11:51 PM	79.0 °F	-	70.0 °F	74%	29.91 in	10.0 mi	SSW	8.1 mph	-	N/A		Partly Cloudy

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Appendix C

History for Teterboro, NJ

Friday, August 3, 2012

Friday, August 3, 2012

« Previous Day

August 3 2012 View

Next Day »

Daily Weekly Monthly Custom

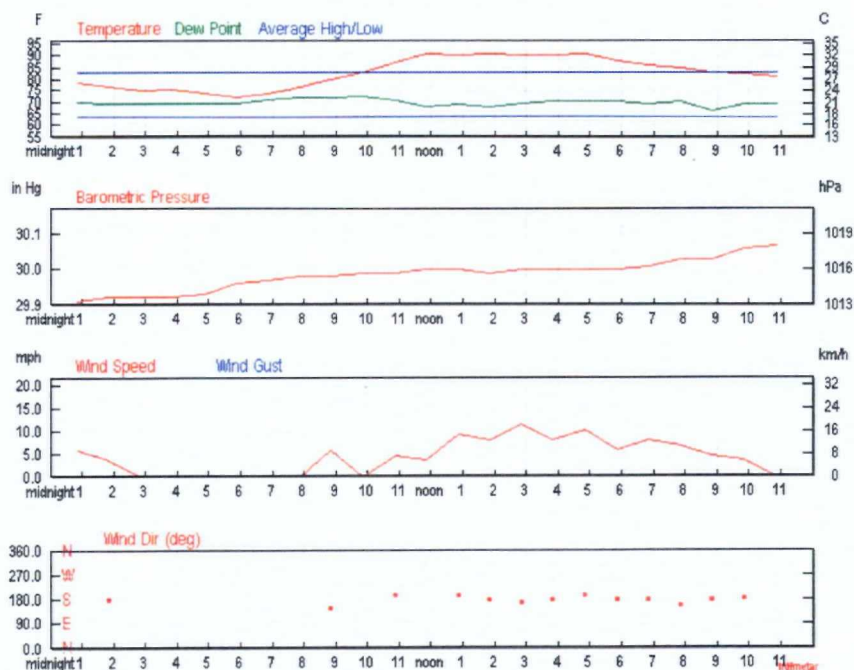
	Actual	Average	Record
Temperature			
Mean Temperature	82 °F	-	
Max Temperature	91 °F	83 °F	98 °F (2005)
Min Temperature	72 °F	64 °F	60 °F (1998)
Cooling Degree Days	16		
Growing Degree Days	32 (Base 50)		
Moisture			
Dew Point	70 °F		
Average Humidity	67		
Maximum Humidity	91		
Minimum Humidity	47		
Precipitation			
Precipitation	0.00 in	-	- ()
Sea Level Pressure			
Sea Level Pressure	29.99 in		
Wind			
Wind Speed	4 mph (South)		
Max Wind Speed	12 mph		
Max Gust Speed	-		
Visibility	10 miles		
Events			

Averages and records for this station are not official NWS values.
Click here for data from the nearest station with official NWS data (KNYC).

T = Trace of Precipitation, MM = Missing Value

Source: NWS Daily Summary

Seasonal Weather Averages



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Appendix C



Hourly Observations

Time (EDT)	Temp.	Heat Index	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Conditions
12:51 AM	78.8 °F	-	69.8 °F	74%	29.91 in	10.0 mi	SSW	5.8 mph	-	N/A		Scattered Clouds
1:51 AM	77.0 °F	-	69.1 °F	76%	29.92 in	10.0 mi	South	3.5 mph	-	N/A		Clear
2:51 AM	75.0 °F	-	69.1 °F	82%	29.92 in	10.0 mi	Calm	Calm	-	N/A		Clear
3:51 AM	75.9 °F	-	69.1 °F	79%	29.92 in	10.0 mi	Calm	Calm	-	N/A		Clear
4:51 AM	73.9 °F	-	69.1 °F	85%	29.93 in	10.0 mi	Calm	Calm	-	N/A		Clear
5:51 AM	72.0 °F	-	69.1 °F	91%	29.96 in	7.0 mi	Calm	Calm	-	N/A		Clear
6:51 AM	73.9 °F	-	71.1 °F	91%	29.97 in	7.0 mi	Calm	Calm	-	N/A		Clear
7:51 AM	77.0 °F	-	72.0 °F	84%	29.98 in	7.0 mi	Calm	Calm	-	N/A		Clear
8:51 AM	80.1 °F	83.8 °F	72.0 °F	76%	29.98 in	8.0 mi	SSE	5.8 mph	-	N/A		Clear
9:51 AM	82.9 °F	88.8 °F	73.0 °F	72%	29.99 in	9.0 mi	Calm	Calm	-	N/A		Clear
10:51 AM	87.1 °F	92.8 °F	71.1 °F	59%	29.99 in	10.0 mi	SSW	4.6 mph	-	N/A		Clear
11:51 AM	91.0 °F	95.2 °F	68.0 °F	47%	30.00 in	10.0 mi	Variable	3.5 mph	-	N/A		Clear
12:51 PM	90.0 °F	94.5 °F	69.1 °F	50%	30.00 in	10.0 mi	SSW	9.2 mph	-	N/A		Scattered Clouds
1:51 PM	91.0 °F	95.2 °F	68.0 °F	47%	29.99 in	10.0 mi	South	8.1 mph	-	N/A		Scattered Clouds
2:51 PM	90.0 °F	95.4 °F	70.0 °F	52%	30.00 in	10.0 mi	South	11.5 mph	-	N/A		Partly Cloudy
3:51 PM	90.0 °F	96.4 °F	71.1 °F	54%	30.00 in	10.0 mi	South	8.1 mph	-	N/A		Partly Cloudy
4:51 PM	91.0 °F	97.6 °F	71.1 °F	52%	30.00 in	10.0 mi	SSW	10.4 mph	-	N/A		Clear
5:51 PM	88.0 °F	93.8 °F	71.1 °F	57%	30.00 in	10.0 mi	South	5.8 mph	-	N/A		Clear
6:51 PM	86.0 °F	90.7 °F	70.0 °F	59%	30.01 in	10.0 mi	South	8.1 mph	-	N/A		Clear
7:51 PM	84.9 °F	90.1 °F	71.1 °F	63%	30.03 in	10.0 mi	SSE	6.9 mph	-	N/A		Clear
8:51 PM	82.9 °F	85.4 °F	66.9 °F	58%	30.03 in	10.0 mi	South	4.6 mph	-	N/A		Clear
9:51 PM	82.4 °F	86.3 °F	69.8 °F	66%	30.06 in	10.0 mi	South	3.5 mph	-	N/A		Clear
10:51 PM	81.0 °F	84.4 °F	70.0 °F	69%	30.07 in	10.0 mi	Calm	Calm	-	N/A		Clear

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Appendix C

Appendix C – Laboratory Sample Results

Mr. Glenn Pacheco Parsons	Project Name: WW Hg Air Sampling
Results: Total Atm. Hg In Ambient Air via Frontier Solid Sorbent Method	
Kate Haney - Frontier Global Sciences Inc. - 08/16/2012	

TABLE 1: Total Atmospheric Mercury (Incident Particulate Bound and Gas Phase Hg) FSTM A

Lab Sample ID	Field Sample ID	A Trap ng/trap	Sample Volume (Liters)	Estimated Blank Corrected Concentration (µg/m³)
1208083-01	NE-1	167.0 ng	6931	0.025
1208083-02	CN-2	235.0 ng	6684	0.036
1208083-03	CN-D-3	265.0 ng	6335	0.043
1208083-04	SW-4	814.0 ng	6352	0.131
1208083-05RE1	SW-O-5	17.1 ng	6347	0.003
1208083-06	FB-6	ND	NA	NA

TABLE 2: Total Atmospheric Mercury (Gas Phase Hg) FSTM B

Lab Sample ID	Field Sample ID	B Trap ng/trap	Breakthrough % (FSTM B / FSTM A)
1208083-01	NE-1	4.6 ng	2.8%
1208083-02	CN-2	4.6 ng	2.0%
1208083-03	CN-D-3	7.5 ng	2.8%
1208083-04	SW-4	18.8 ng	2.3%
1208083-05	SW-O-5	0.9 ng	5.3%
1208083-06	FB-6	0.34 ng	NA

Breakthrough on sample SW-O-5 was > 5%; however the detection was below the method reporting limit (MRL) of 2.0 ng. The result should be considered estimated at this level. FGS standard practice is to report to the method detection limit (MDL) of 0.34 ng for all sample data.

Mr. Glenn Pacheco
Parsons

Project Name: WW Hg Air Sampling

Results: Total Atm. Hg In Ambient Air via Frontier Solid Sorbent Method

Kate Haney - Frontier Global Sciences Inc. - 08/16/2012

TABLE 3: Frontier Ambient Air Hg Preparation Method Blanks

Lab Prep Blank ID	ng Hg/Trap
F208069-BLK1	ND
F208069-BLK2	ND
F208069-BLK3	ND
Average >	ND
Standard Deviation >	NA
Relative Standard Deviation >	NA
Minimum Detection Limit >	0.34 ng
Minimum Reporting Limit >	2.0 ng

TABLE 4: Initial Calibration Verification - Secondary Standard

QC Parameter	Observed Value (ng/L)	True Value (ng/L)	SRM % Recovery	QA/QC Range
2H13010-ICV1	5.10 ng/L	5.00 ng/L	102.0%	80%-120%

TABLE 5: Analytical Spike Recovery

Lab Sample ID	Measured (ng/trap)	Net Measured (ng/Trap)	Expected (ng/Trap)	% Recovery	QA/QC Range	RPD
F208069-MS1	2372.0 ng	1580.2 ng	1600 ng	98.8%	75% - 125%	
F208069-MSD1	2354.0 ng	1562.2 ng	1600 ng	97.6%	75% - 125%	0.76%

TABLE 6: Lab Replicate Results

Lab Sample ID	Replicate#1 (ng/Trap)	Replicate#2 (ng/Trap)	RPD	QA/QC Range
F208069-DUP1	814.0 ng	769.7 ng	5.6%	< 25%

TABLE 7: Lab Control Spike Recovery

Lab Sample ID	Measured (ng/trap)	Expected (ng/Trap)	% Recovery	QA/QC Range
F208069-BS1	20.3 ng	25 ng	81.3%	75% - 125%
F208069-BSD1	18.9 ng	25 ng	75.8%	75% - 125%

Mr. Glenn Pacheco

Project Name: WW Hg Air Sampling

Parsons

Results: Total Atm. Hg In Ambient Air via Frontier Solid Sorbent Method

Kate Haney - Frontier Global Sciences Inc. - 08/16/2012

TABLE 8: Initial Calibration Blank (ICB) and Continued Calibration Blanks (CCBs)

CCB ID	ICB/CCB (ng Hg/Blank)	QA/QC Acceptance
2H13010-IBL1	ND	< 0.5
2H13010-IBL2	ND	< 0.5
2H13010-IBL3	ND	< 0.5
2H13010-IBL4	ND	< 0.5
2H13010-CCB1	0.02 ng/L	< 0.5
2H13010-CCB2	0.01 ng/L	< 0.5
2H13010-CCB3	0.05 ng/L	< 0.5
2H13010-CCB4	0.03 ng/L	< 0.5
2H13010-CCB5	0.02 ng/L	< 0.5

TABLE 9: Continued Calibration Verification (CCVs) - Primary Standard

CCV ID	Measured	True Value	% Rec.	QA/QC Acceptance
2H13010-CCV1	20.06 ng/L	20.0 ng/L	100.3%	80% - 120%
2H13010-CCV2	19.41 ng/L	20.0 ng/L	97.1%	80% - 120%
2H13010-CCV3	19.13 ng/L	20.0 ng/L	95.7%	80% - 120%
2H13010-CCV4	19.88 ng/L	20.0 ng/L	99.4%	80% - 120%
2H13010-CCV5	5.04 ng/L	5.0 ng/L	100.8%	80% - 120%

TABLE 11: Analytical Calibration Curves (Primary Standard)

Calibration Point ID	Measured	True Value	% Rec.	QA/QC Acceptance
2H13010-CAL1	0.50	0.50	100.0%	90%-110%
2H13010-CAL2	1.04	1.00	104.0%	90%-110%
2H13010-CAL3	4.98	5.00	99.6%	90%-110%
2H13010-CAL4	19.76	20.00	98.8%	90%-110%
2H13010-CAL5	38.87	40.00	97.2%	90%-110%
Curve Statistics		$y = 149.51x$	$R^2 = 0.9999$	$R^2 \geq 0.99$

Appendix C

Appendix D – Field Sampling Data and Calculations

Appendix C

**Ventron/Velsicol Superfund Site OU-1
Wood-Ridge/Carlstadt, New Jersey
Wolf Warehouse Air Sampling
Field Data Calculations from August 2 - 3, 2012 Sampling Event**

	Start		End			Start			End		Average	Sample
	Date	Time	Date	Time	Sample Time (Min)	Flow	Flow-2	Flow-3	Flow		Flow (Lpm)	Volume (Liters)
NE-1	8/2/2012	11:43	8/3/2012	11:48	1445	4.769	4.779	4.818	4.821		4.797	6931.3
CN-2	8/2/2012	11:53	8/3/2012	11:53	1440	4.615	4.628	4.643	4.681		4.642	6684.1
CN-D-3	8/2/2012	11:53	8/3/2012	11:53	1440	4.420	4.417	4.360	4.401		4.400	6335.3
SW-4	8/2/2012	11:57	8/3/2012	12:00	1443	4.439	4.441	4.345	4.384		4.402	6352.4
NW-O-5	8/2/2012	12:00	8/3/2012	12:04	1444	4.346	4.372	4.417	4.447		4.396	6347.1
Field Blank	8/2/2012	NA	8/3/2012	NA	NA	NA	NA	NA	NA		NA	NA
	Date	Time	Date	Time	Time (Min)	Temp	Temp-2	Temp-3	Temp		Temp (F)	
NE-1	8/2/2012	11:43	8/3/2012	11:48	1445	81.0	83.2	81.3	82.2		81.9	
CN-2	8/2/2012	11:53	8/3/2012	11:53	1440	80.4	82.9	81.3	83.7		82.1	
CN-D-3	8/2/2012	11:53	8/3/2012	11:53	1440	80.4	82.9	81.3	83.7		82.1	
SW-4	8/2/2012	11:57	8/3/2012	12:00	1443	82.6	83.1	81.9	84.6		83.1	
NW-O-5	8/2/2012	12:00	8/3/2012	12:04	1444	82.9	84.5	82.8	86.0		84.1	
Field Blank	8/2/2012	NA	8/3/2012	NA	NA	NA	NA	NA	NA		NA	
	Date	Time	Date	Time	Time (Min)	RH	RH-2	RH-3	RH		RH (%)	
NE-1	8/2/2012	11:43	8/3/2012	11:48	1445	63.6	65.6	75.3	70.8		68.8	
CN-2	8/2/2012	11:53	8/3/2012	11:53	1440	63.3	65.3	67.4	65.1		65.3	
CN-D-3	8/2/2012	11:53	8/3/2012	11:53	1440	63.3	65.3	67.4	65.1		65.3	
SW-4	8/2/2012	11:57	8/3/2012	12:00	1443	65.2	65.1	67.2	61.6		64.8	
NE-O-5	8/2/2012	12:00	8/3/2012	12:04	1444	56.5	61.1	72.9	53.5		61.0	
Field Blank	8/2/2012	NA	8/3/2012	NA	NA	NA	NA	NA	NA		NA	
Barometric Pressure Readings (mmHg):						758.4	758.4	761.7	761.7		760.1	

Appendix D – Vertical Barrier Wall Effectiveness Evaluation Figures

Figure D1 - Vertical Barrier Wall Mercury Analysis Western Alignment (BM-MW-7 to BM-MW-8)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

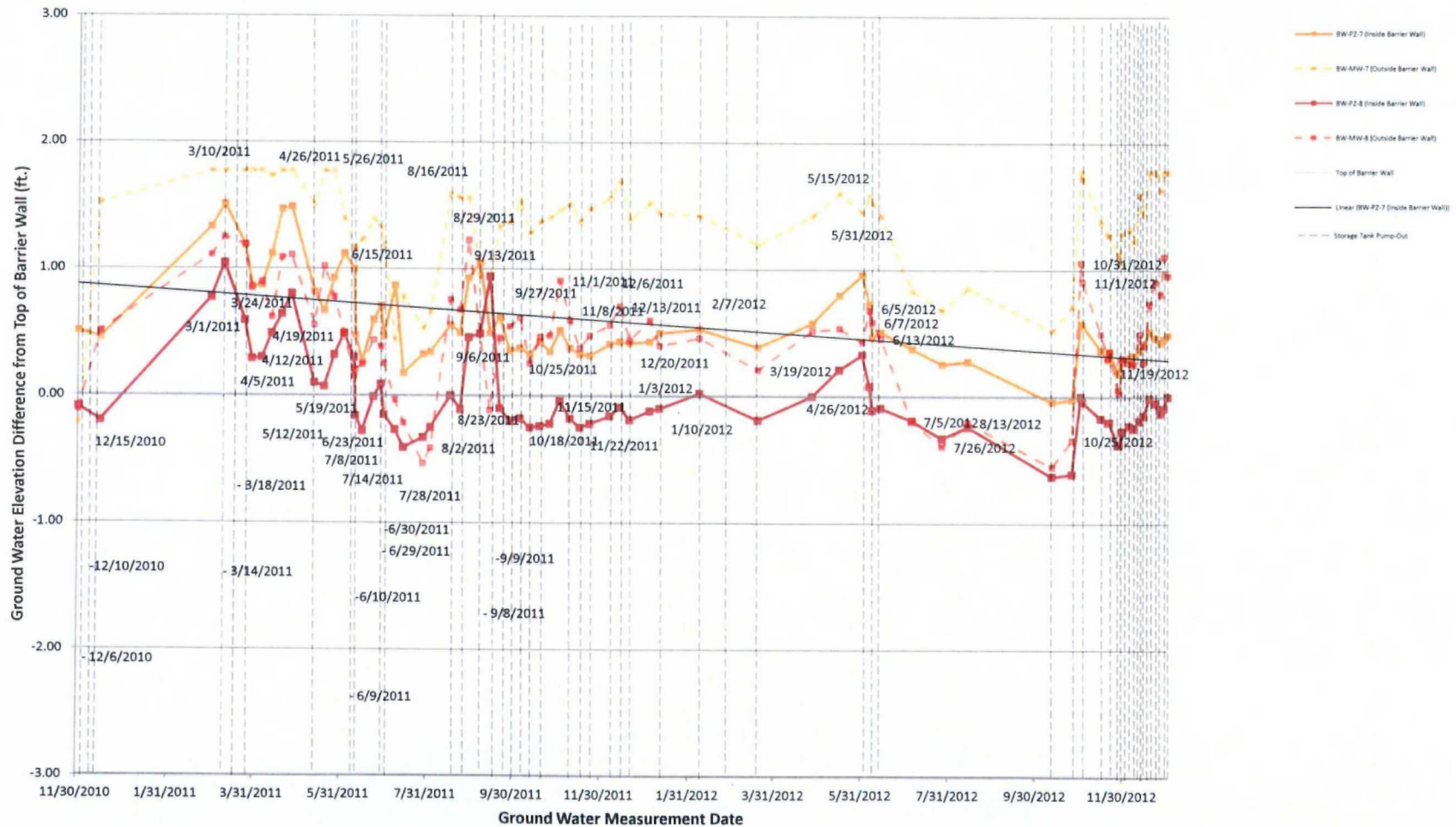


Figure D2 - Vertical Barrier Wall Mercury Analysis Northwest Alignment (BM-MW-8 to BM-MW-1)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

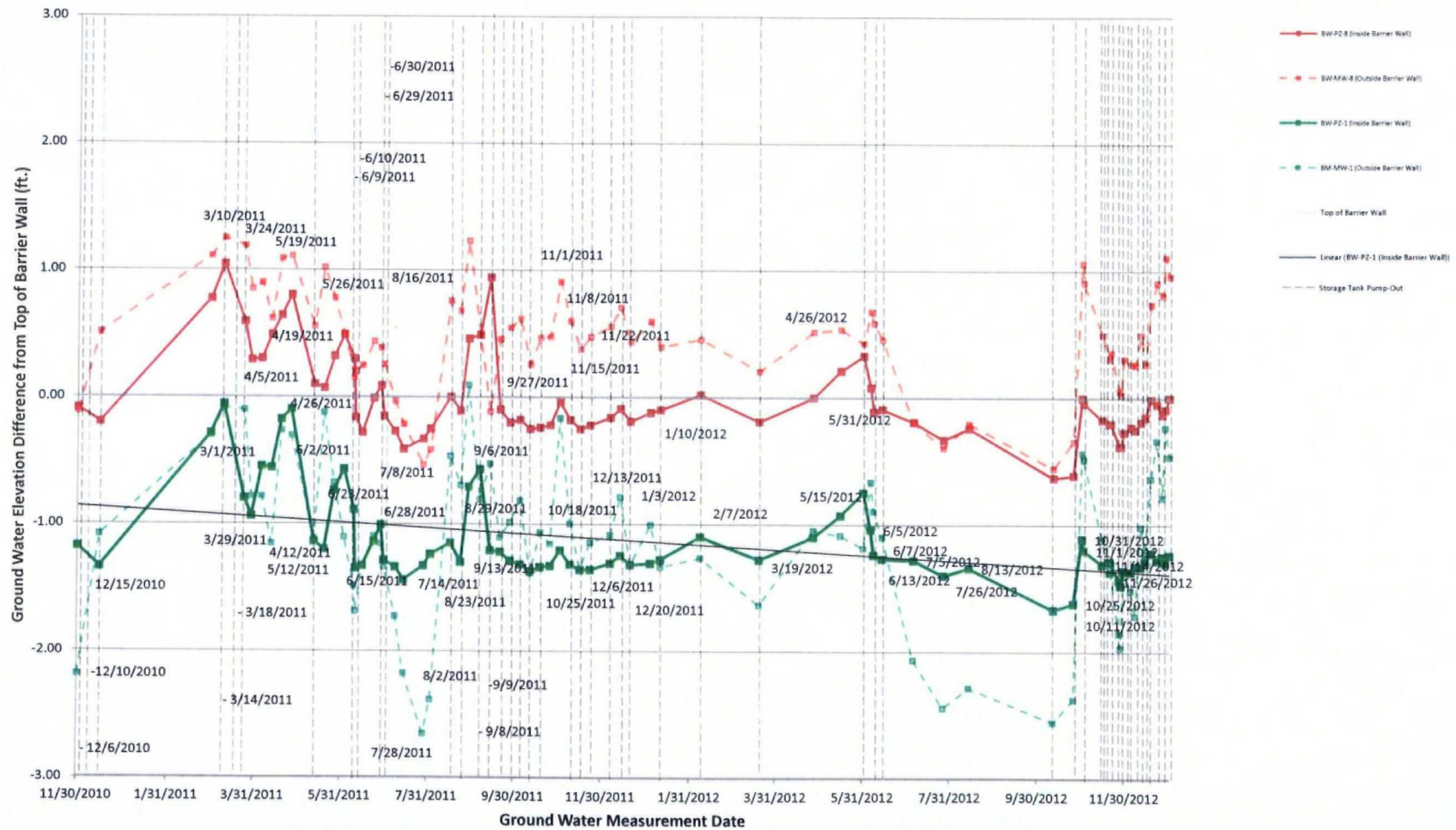


Figure D3 - Vertical Barrier Wall Mercury Analysis Northern Alignment (BM-MW-1 to BM-MW-2)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

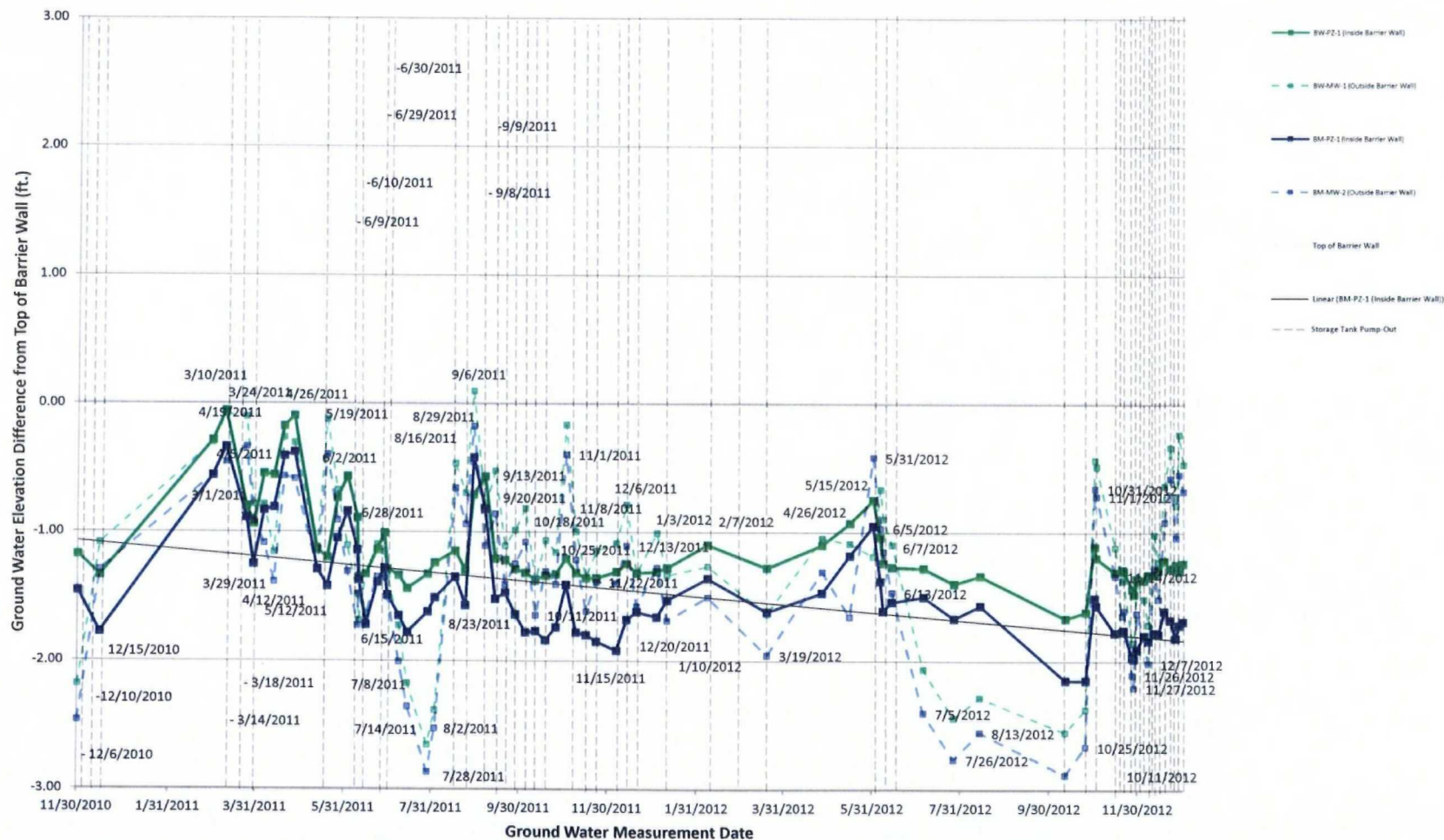


Figure D4 - Vertical Barrier Wall Mercury Analysis Northeast Alignment (BM-MW-2 to BM-MW-3)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

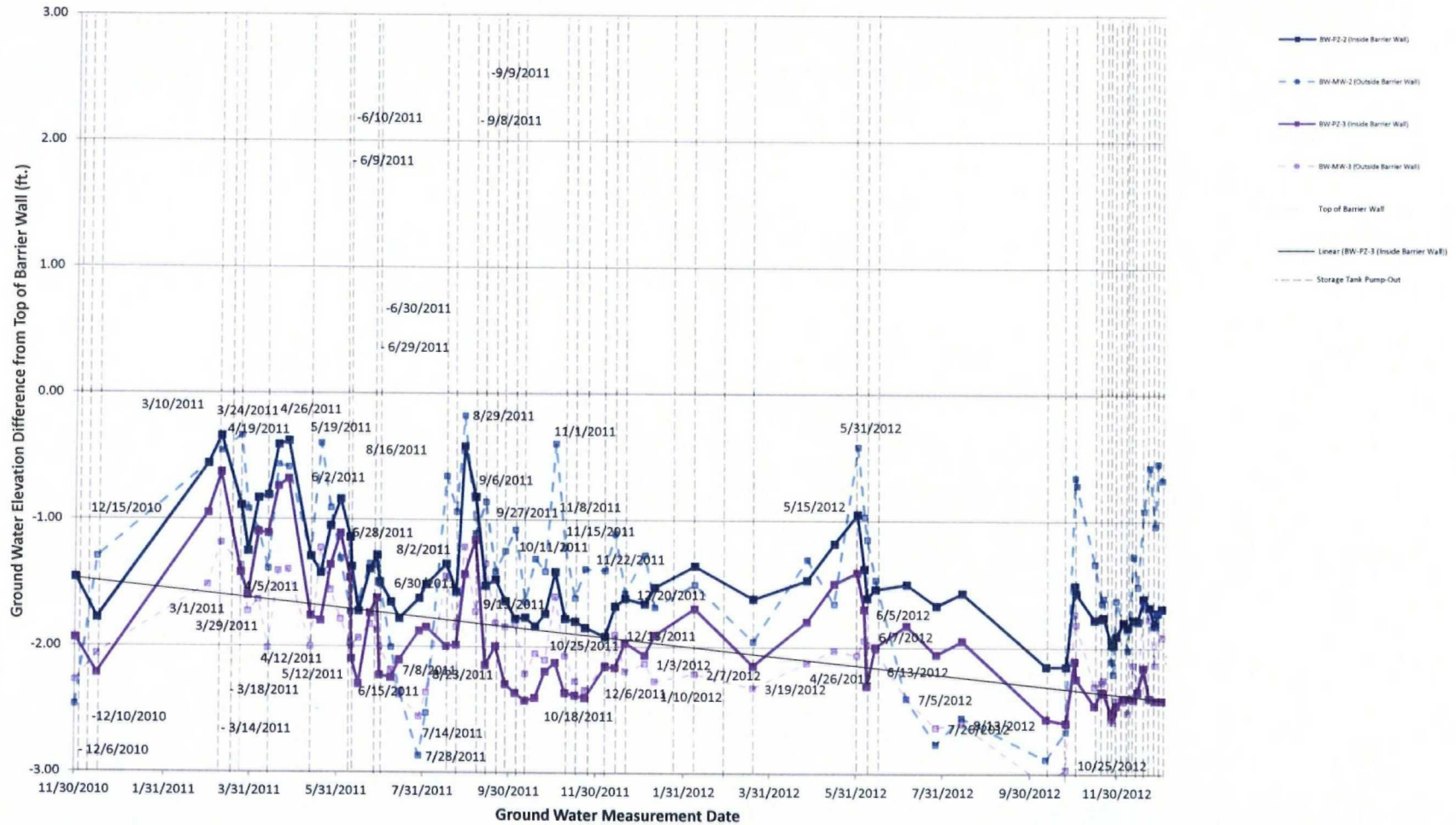


Figure D5 - Vertical Barrier Wall Mercury Analysis Eastern Alignment (BM-MW-3 to BM-MW-4)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

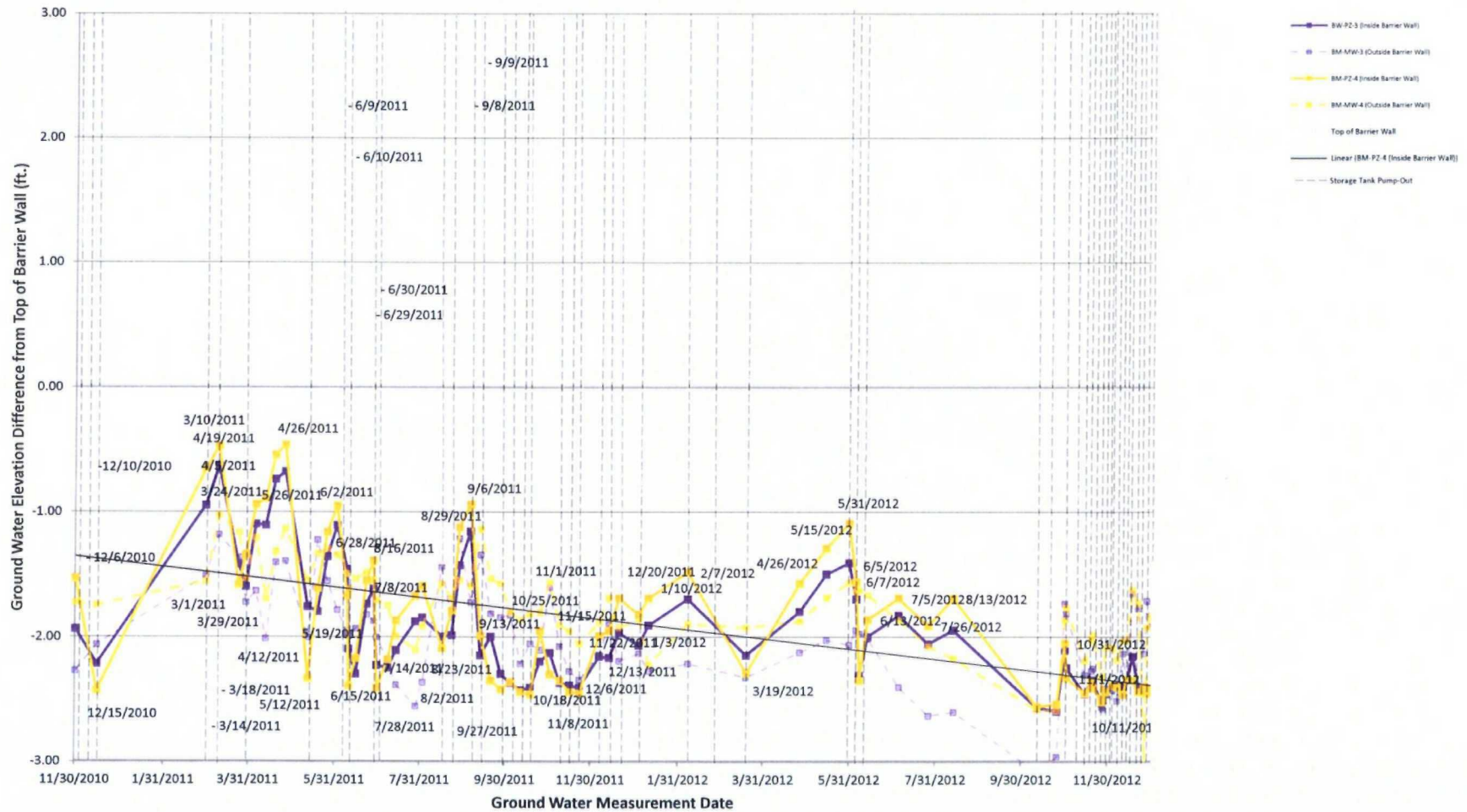


Figure D6 - Vertical Barrier Wall Mercury Analysis Southeast Alignment (BM-MW-4 to BM-MW-5)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

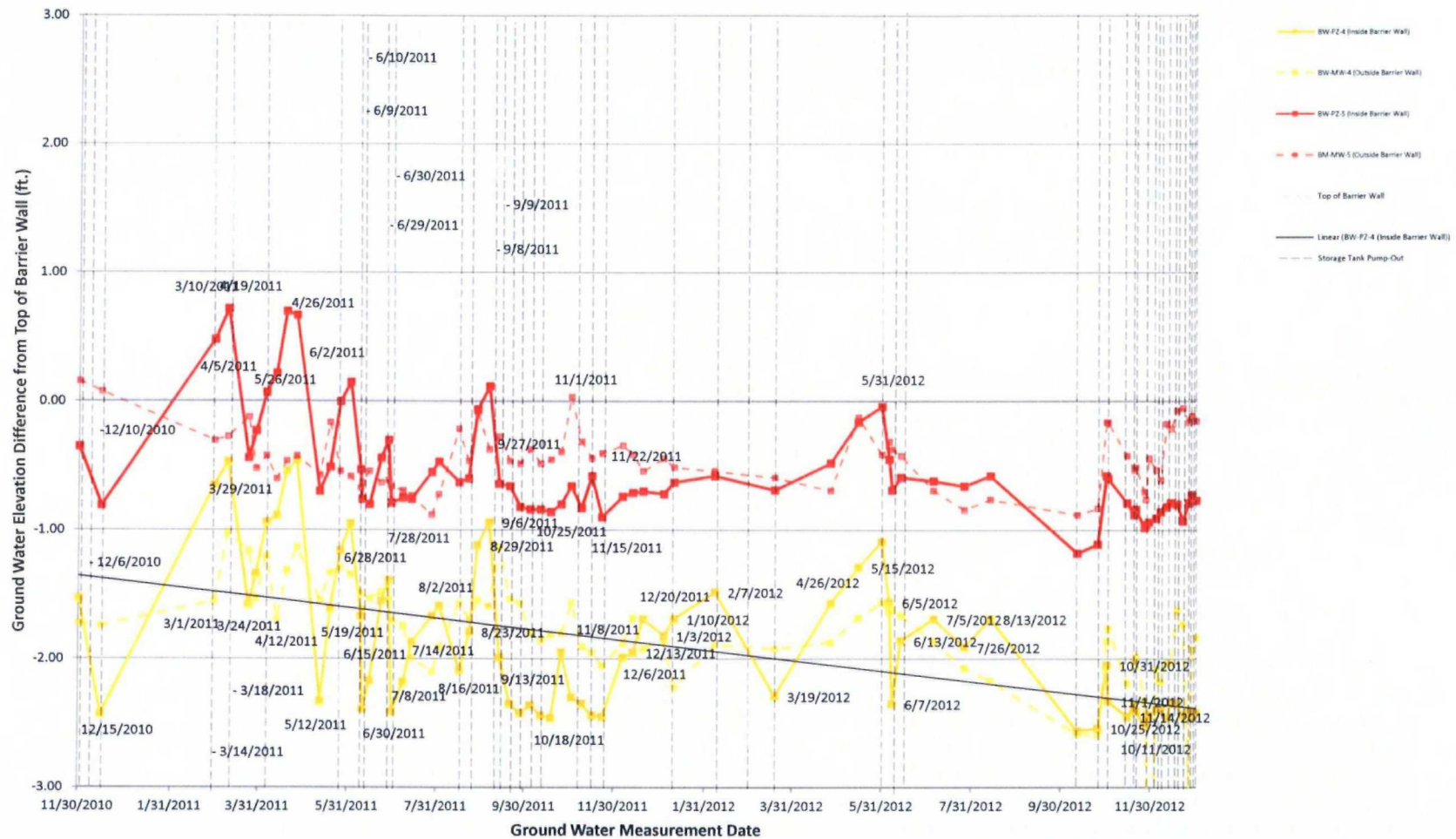


Figure D7 - Vertical Barrier Wall Mercury Analysis Southern Alignment (BM-MW-5 to BM-MW-6)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ

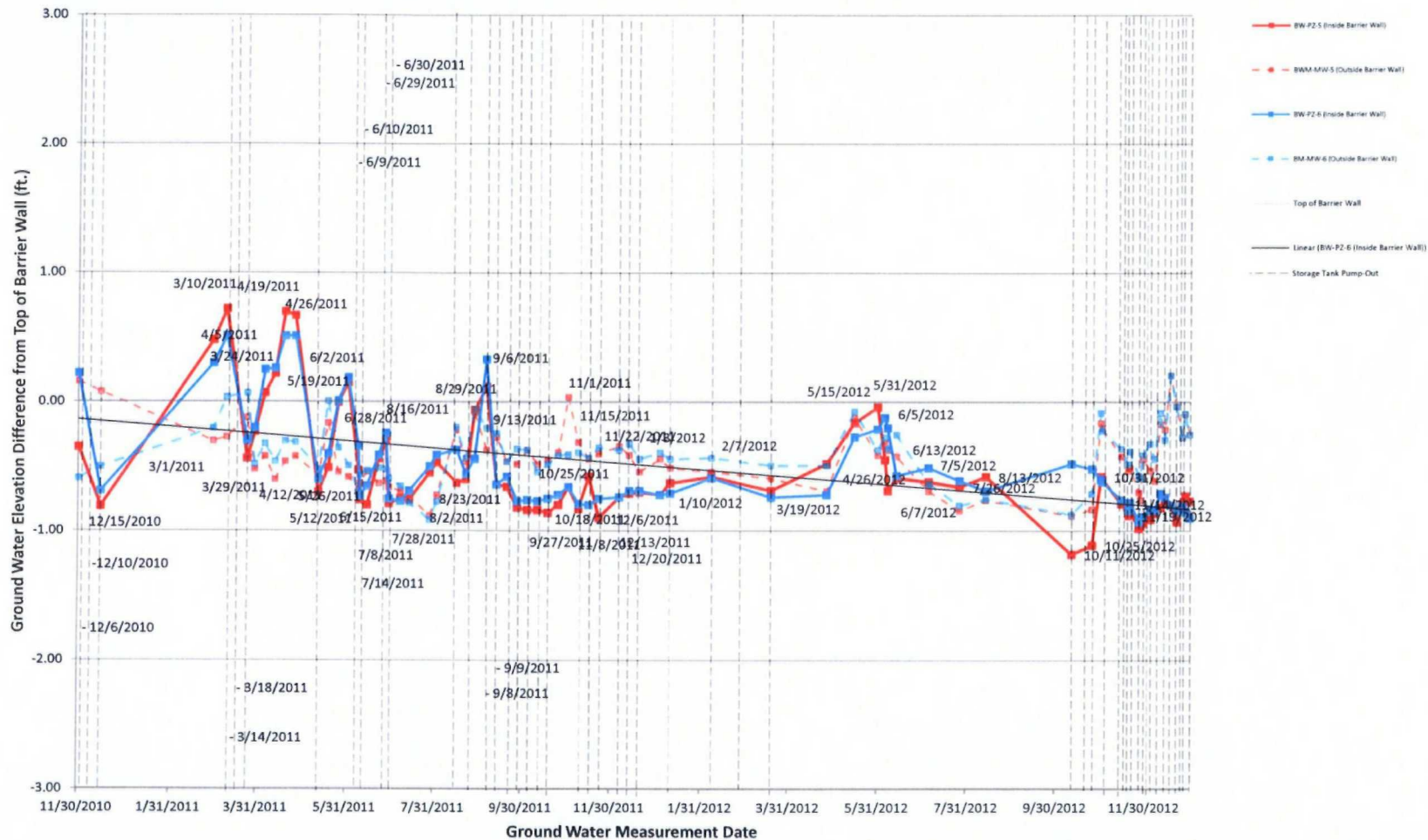
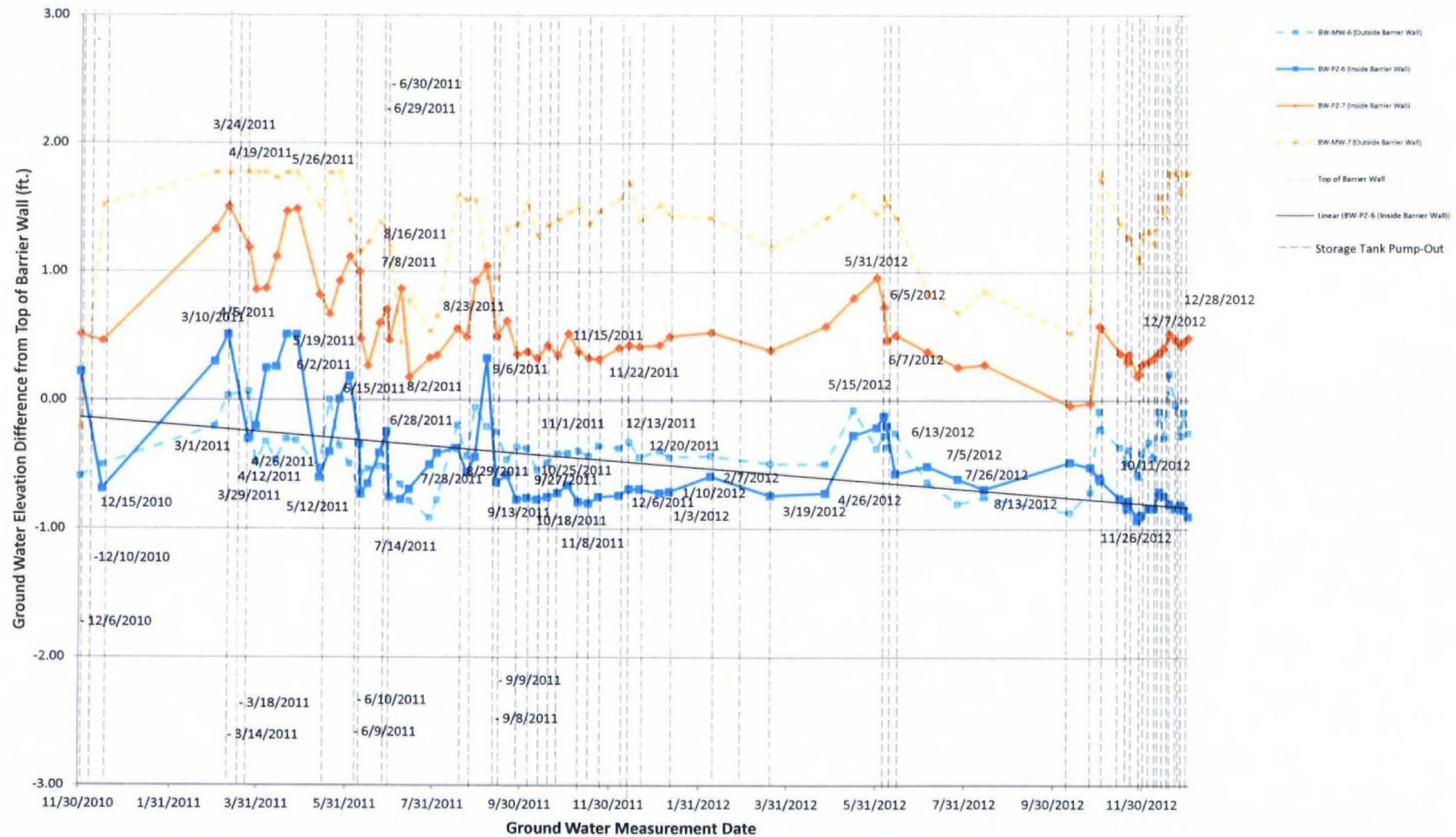


Figure D8 - Vertical Barrier Wall Mercury Analysis Southwest Alignment (BM-MW-6 to BM-MW-7)
 OM&M 2012 Annual Report
 Ventron/Velsicol Superfund Site Operable Unit One
 Wood-Ridge, NJ



Appendix E – General Site Inspection Forms

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Veliscot Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte

Organization: PALSA

Date: 2/23/12

Weather: clear Cold

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
* Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Randolph Products Property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

* barrel service road restored on site.

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gates and Locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Randolph Property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

None

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
* Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

OM+M

Ventron/Veliscot Superfund Site
Operable Unit 1

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

* Surface concrete cracking around Wolf property,

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Hair line cracking around perimeter of Wolf property warehouse,

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
* Warehouse Floor Slab Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

* unable to access

Concrete cap has numerous cracks. Some cracks between Wolf and Ready Raw warehouse have been repaired with sealant.
(w.s. life)

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property 1. Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
U.S. Life Property 2. Asphalt Pavement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur Railroad Siding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

1. Asphalt is intact but showing ponding and wear.
2. Multiple potholes and damaged areas in asphalt.
3. Cracking between U.S. Life and Volke property.

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

Small area near storage box / concrete cap and gravel access Road.

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

N/A

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Veliscot Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Water Level Measurements:

T-1 2.52
T-2 2.35

Tanks Emptied on monthly basis.

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches

Description:

Yes: ☐ No: ☐

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐


Signature of Inspector

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte
 Organization: Parrsons
 Date: 5/17/12
 Weather: Partly Cloudy

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

Trench bags should be removed from property that are stored next to Field Storage box.

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gates and Locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

AA. Storm Water Controls (cont.)

Type, location and extent of damaged stormwater control(s):

Small Areas Across the site require additional topsoil, seed and hay to complete stabilization. Area adjacent to Northwest End of Berm needs stone moved from berm ramp to S/ou surface water flow. Additional Rip-Rap needs to be added in berm transitional area. JK 7/10

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Ponding adjacent to berm ramp is slow draining

Task B - Developed Area Cape Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Warehouse Floor Slab	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

— Not Observed.

Type, location and extent of damage. Include dimensions:

Primary Areas of concern are the North and East Concrete Cap. The North Cap Area has been used more by the Facility for parking cars and loading Tanton Trailers. Surface cracking is increasing, but width of the cracks is not. (See Photos)

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

B2. Other Capping

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

EJB - Potholes, not exposing soil

U.S. Life - Potholes, not exposing soil, concrete cap cracking minimal.

Ethel Blvd - Potholes, not exposing soil

Task C - Undeveloped Area Cap Inspection**C1. Differential Settlement**

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

C2. Burrowing Wildlife

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Black Laurel in 55 ft Buffer

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Task D - Vertical Hydraulic Barrier Wall Inspection

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks/Water Level Measurements:

T-1 = 1.87
T-2 = 1.70

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches:

Description:

Yes: ☐ No: ☒

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐



Signature of Inspector

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Mena
Organization: PARSONS
Date: 8/16/12
Weather: Sun/Rain

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
* Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Deficiencies:

Access Road on S. + E. Extended 600 FT

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gates and Locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Deficiencies:

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

OM+M
Ventron/Velsicol Superfund Site
Operable Unit 1

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

Various Areas on site need top soil and seed

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Top soil Rehabilitating across site in selected areas
Top soil stockpiles present on site.

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
* Warehouse Floor Slab	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
** Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

* Floor Slab inspection did not see new cracking on floor, but new cracking (previously not identified) adjacent to roof pillars throughout building.

** Surface cracking on concrete cap. Conditions similar to previous inspection.

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

*Ground hog observed on 55 Ft Buffer and on 1 cap.
 Ground burrows observed on 55 Ft Buffer (North Ditch area)*

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Primarily on North Ditch (Black Locusts, Phragmites)

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Veliscot Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks/Water Level Measurements:

*Water to be removed offsite in near future. Currently 2
Frang. tanks onsite with approx 2,000 gallons of water*

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒

No: ☐

B. Sketches

Description:

Yes: ☐

No: ☒


C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒

No: ☐



Signature of Inspector

[illegible]

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte

Organization: PARSONS

Date: 11/13/12

Weather: Partly Cloudy

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gates and Locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

OM+M
Ventron/Velsicol Superfund Site
Operable Unit 1

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup :

*Vegetation in center of property is in need of
repair /reseeding.*

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
<i>A</i> Warehouse Floor Slab	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Concrete Cap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

** Not inspected*

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

N/A

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

NA

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Herbicide Application and manual Removal took place in October 2012 by Princeton Hydro.

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

NA

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Veliscot Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Water Level Measurements:

T-1 5.20
T-2 5.35

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches:

Description:

Yes: ☐ No: ☐

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐



Signature of Inspector

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte
Organization: PALSAS
Date: 2/23/12
Weather: clear cold

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
* Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

* barrel service road restored on site.

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gates and Locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

None

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
* Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

* Surface concrete cracking around Wolf property,

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Hair line cracking around perimeter of Wolf property warehouse,

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
* Warehouse Floor Slab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

* unable to access

Concrete cap has numerous cracks. Some cracks between Wolf and Ready Raw warehouse have been repaired with sealant.
(w.s. life)

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property 1. Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
U.S. Life Property 2. Asphalt Pavement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur Railroad Siding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

1. Asphalt is intact but showing ponding and wear.
2. Multiple potholes and damaged areas in asphalt.
3. Cracking between U.S. Life and Volke property.

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

Small area near storage box / concrete cap and gravel access Road.

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

N/A

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Water Level Measurements:

T-1 2.52

T-2 2.35

Tanks Emptied on monthly basis.

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches:

Description:

Yes: ☐ No: ☐

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐


Signature of Inspector

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte
Organization: Parrsons
Date: 5/17/12
Weather: Partly Cloudy

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

Trash bags should be removed from property that are stored next to Field Storage box.

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gates and Locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

A4. Storm Water Controls (cont.)

Type, location and extent of damaged stormwater control(s):

Small Areas Across the site require additional topsoil, seed and hay to complete stabilization. Area adjacent to Northwest End of Berm needs stone moved from berm ramp to slow surface water flow. Additional Rip-Rap needs to be added in berm transitional area. JK 7/10

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Ponding adjacent to berm ramp is slow draining

Task B - Developed Area Caps Inspection

B1. Wall Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Warehouse Floor Slab	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

— Not Observed.

Type, location and extent of damage. Include dimensions:

Primary areas of concern are the North and East Concrete Cap. The North cap area has been used more by the facility for parking cars and loading Tractor-Trailers. Surface cracking is increasing, but width of the cracks is not. (See Photos)

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

B2. Other Capping

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

EJB - Potholes, not Exposing soil

U.S. Life - Potholes, not Exposing soil, concrete cap cracking minimal.

Ethel Blvd - Potholes, not Exposing soil

Task C - Undeveloped Area Cap Inspection**C1. Differential Settlement**

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

C2. Burrowing Wildlife

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Black Laurel in 55 ft Buffer

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

N/A

5/17/12

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Task D - Vertical Hydraulic Barrier Wall Inspection

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks/Water Level Measurements:

T-1 = 1.87
T-2 = 1.70

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches:

Description:

Yes: ☐ No: ☒

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐



Signature of Inspector

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte
Organization: PARSONS
Date: 8/16/12
Weather: Sun/Rain

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
* Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Deficiencies:

Access Road on Site Extended 600FT

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gates and Locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Deficiencies:

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

OM+M
Ventron/Velsicol Superfund Site
Operable Unit 1

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

Various Areas on site need top soil and seed

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup:

Top soil Rehab. shing across site in selected areas
Top soil stockpiles present on site.

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
* Warehouse Floor Slab	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
* Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of damage. Include dimensions:

* Floor Slab inspection did not see new cracking on floor, but new cracking (previously not identified) adjacent to roof pillars throughout building.

** Surface cracking on concrete cap. Conditions similar to previous inspection.

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

Ground hog observed on 55 Ft Buffer and on 1 cap.
Ground burrows observed on 55 Ft Buffer (North Ditch area)

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Primarily on North Ditch (Black Locusts, Phragmites)

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
 Ventron/Velsicol Superfund Site Operable Unit 1
 Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks/Water Level Measurements:

*Water to be removed offsite in near future. Currently 2
 Fragg. tanks onsite with approx 27,000 gallons of water*

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches

Description:

Yes: ☐ No: ☒

C. Supplemental Inspection Notes/Forms:

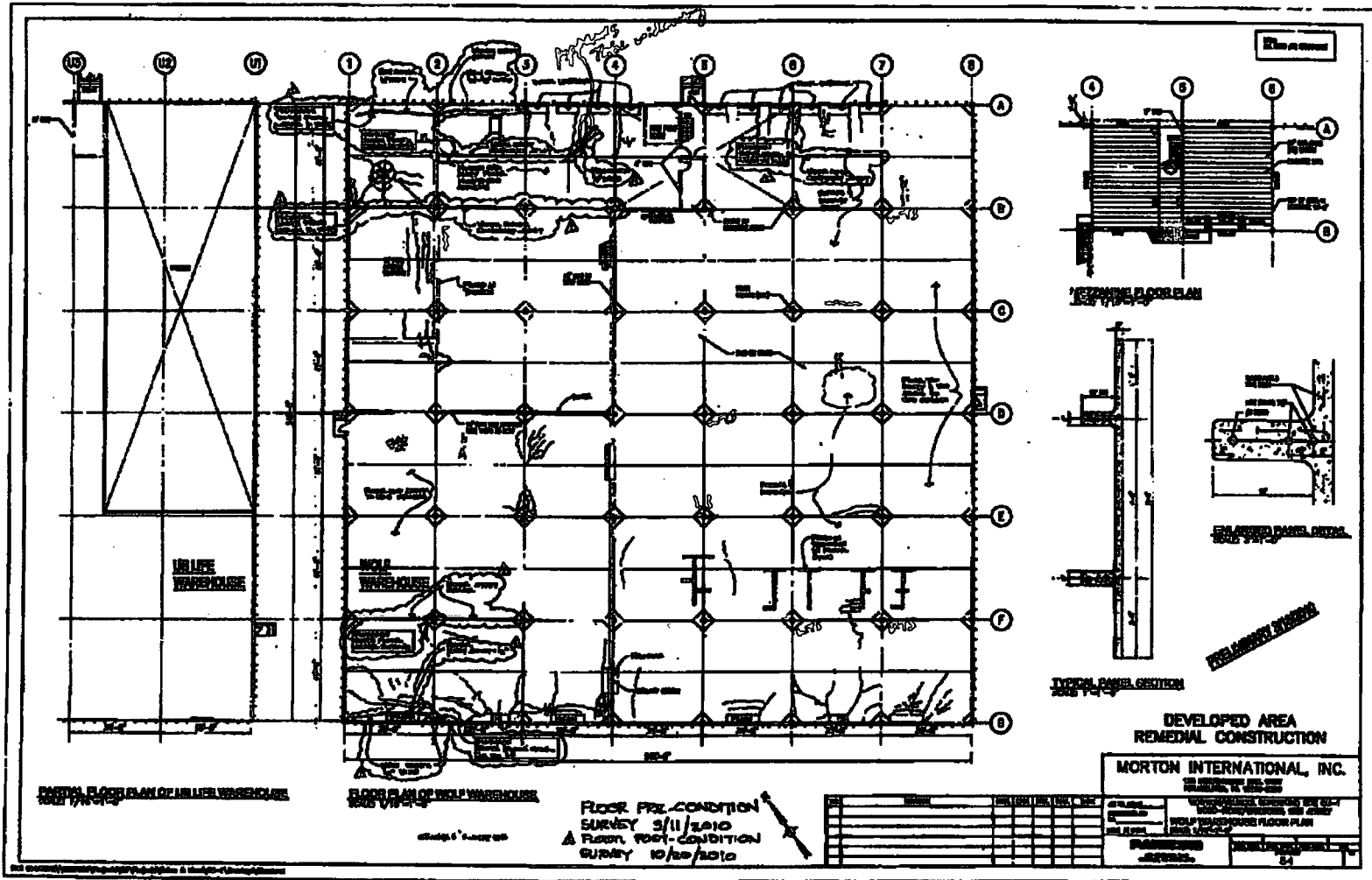
Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐

[Signature]
 Signature of Inspector

UTS: unable to see due to material storage in the inner



Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Inspector: S. Monte

Organization: PARSONS

Date: 11/13/12

Weather: Partly Cloudy

I. Inspection Items

Task A - General Site Inspection

A1. General Site Conditions

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
House Keeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Access Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signage				
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Products Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A2. Site Security

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Perimeter Chain Link Fencing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gates and Locks				
Ethel Boulevard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randolph Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks/Deficiencies:

N/A

A3. Erosion and Sedimentation Control Inspection

See attached SWPPP Erosion and Sedimentation Control Form.

A4. Storm Water Controls

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
Developed Area				
Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roof Drains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undeveloped Area				
Cap Grades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rip-rap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Culverts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tide Gate Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A4. Storm Water Controls (cont.)

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Type, location and extent of damaged stormwater control(s):

Description of area(s) exhibiting excessive ponding, erosion, improper drainage, blockage, and/or sediment buildup :

*Vegetation in center of property is in need of
repair/reseeding.*

Task B - Developed Area Caps Inspection

B1. Wolf Warehouse Concrete Capping

Inspect warehouse foundation floor and exterior concrete cap for cracking, spalling, holes, or deterioration that affects the protectiveness of the cap or allows for water or vapor intrusion.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
<i>A</i> Warehouse Floor Slab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

** Not inspected*

B2. Other Capping

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor general conditions of the various cap types specified below for protection against contact with underlying soils.

	Condition		Maintenance Required	
	Acceptable:	Unacceptable:	Yes:	No:
EJB Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
U.S. Life Property				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Concrete Cap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ethel Boulevard				
Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norfolk Southern Railroad Spur				
Railroad Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions:

N/A

Task C - Undeveloped Area Cap Inspection

C1. Differential Settlement

Monitor for damage attributed to settlement of the soil capping system.

Settlement Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and stratum of soil capping system impacted:

N/A

C2. Burrowing Wildlife

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

Monitor for damage attributed to burrowing or digging wildlife. Indicators include surface penetrations, soil piles from burrowing, irregular disturbances of shallow soils (commonly indicative of moles), and surface disturbances such as digging indicative of larger animals (such as groundhogs).

Disturbance Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Digging Wildlife Observed		Animal Habitation Observed	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

NA

C3. Undesirable Vegetation

Monitor for undesirable trees, shrubs, and other invasive species (i.e. phragmites).

Invasive Species Observed		Removal Required	
Yes:	No:	Yes:	No:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type, location, and extent of undesirable vegetation observed:

Herbicide Application and manual Removal took place in October 2012 by Princeton Hydro.

C4. Unauthorized Vehicle or Equipment Traffic

Monitor for damage attributed to unauthorized vehicles or equipment operating on the soil capping system.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of disturbance. Include dimensions and stratum of soil capping system impacted:

NA

Task D - Vertical Hydraulic Barrier Wall Inspection

Appendix B - Operation, Maintenance and Monitoring (OM+M) Inspection Form
Ventron/Velsicol Superfund Site Operable Unit 1
Wood-Ridge and Carlstadt, New Jersey

D1. Damage from Vehicle Traffic

Monitor for damage attributed to vehicle or equipment traffic operating.

Damage Observed		Grading or Backfill Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D2. Differential Settlement

Monitor for damage attributed to settlement of the vertical barrier wall or capping system.

Settlement Observed		Maintenance/Repair Required	
Yes:	No:	Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type, location and extent of damage. Include dimensions and estimated barrier wall stationing or building offsets:

N/A

D3. Underground Collection Tank Level Monitoring

Tanks require water disposal coordination if filled greater than 70% of capacity.

Damage Observed	
Yes:	No:
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks/Water Level Measurements:

T-1 5.20
T-2 5.35

D4. Monitoring Well and Piezometers

Ground water monitoring information will be reported on the attached monitoring log.

III. Attachments

A. Photos

Description:

Yes: ☒ No: ☐

B. Sketches:

Description:

Yes: ☐ No: ☐

C. Supplemental Inspection Notes/Forms:

Description:

SWPPP Erosion and Sedimentation Control Form

Yes: ☒ No: ☐


Signature of Inspector

Appendix F – SWPPP Erosion and Sedimentation Control Inspection Forms

1/10/12

by S. Monte

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

TEMPORARY STABILIZATION

Key things to look for ...

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Are there any areas of the site that are disturbed, but will likely lie dormant for over 21 days? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have all dormant, disturbed areas been temporarily stabilized in their entirety? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have disturbed areas outside the silt fence been seeded or mulched? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have soil stockpiles that will sit for over 21 days been stabilized? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Has seed or mulch blown away? If so, repair. | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

NA

CONSTRUCTION ENTRANCES

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has the drive been constructed by placing geotextile fabric under the stone? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the stone 2-inch diameter? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the stone been placed to a depth of 6 inches, with a width of 10 feet and a length of at least 50 feet (30 feet for entrances onto individual sublots)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. If the drive is placed on a slope, has a diversion berm been constructed across the drive to divert runoff away from the street or water resource? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. If drive is placed across a ditch, was a culvert pipe used to allow runoff to flow across the drive? | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

NA

March 07

1/10/12

SEDIMENT PONDS

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Are concentrated flows of runoff directed to a sediment pond? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Is the sediment pond appropriately sized (67 cubic yards per acre of total drainage area)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. For sediment basins that dewater 100% between storms, is the riser pipe wrapped with chicken wire and double wrapped with geotextile fabric? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Does the riser have 1-inch diameter holes spaced 4 inches apart, both horizontally and vertically? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. For sediment basins, which dewater 60% between storms, is the diameter of the dewatering hole per plan? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile? | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Is the length-to-width ratio between inlet(s) and outlet at least 2:1? NOTE: If not, a baffle should be added to lengthen the distance. | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet? | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight? | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Was the basin installed prior to grading the site? | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed once the pond is half-full. Stabilize the dredged sediments with seed and mulch. | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

1/10/12

SILT FENCE

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Is the fence at least 4" to 6" into the ground? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the trench backfilled to prevent runoff from cutting underneath the fence? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Is the fence pulled tight so it won't sag when water builds up behind it? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fence placed on a level contour? If not, the fence will only act as a diversion. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Have all the gaps and tears in the fence been eliminated. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Is the fence controlling an appropriate drainage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Minor sagging across site. Repairs made with
wire where needed

INLET PROTECTION

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Does water pond around the inlet when it rains? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the fabric been replaced when it develops tears or sags? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. For curb inlet protection, does the fabric cover the entire grate, including the curb window? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. For yard inlet protection, does the structure encircle the entire grate? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fabric properly entrenched or anchored so that water passes through it and not under it? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Is sediment that has accumulated around the inlet removed on a regular basis? | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

PERMANENT STABILIZATION

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Are any areas at final grade? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the soil been properly prepared to accept permanent seeding? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has seed and mulch been applied at the appropriate rate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. If rainfall has been inadequate, are seeded areas being watered? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? NOTE: Rock check dams may be needed to slow the flow of runoff. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Vegetation dead across site, few signs of
erosion on site. Matting and Vegetation Stabilizing
Site.

NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is waste and packaging disposed of in a dumpster? Do not burn them on site. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have stream crossings been constructed entirely of non-erodible material? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? NOTE: If you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground. | <input type="checkbox"/> | <input type="checkbox"/> |

N/A

Approx 10000 gallons of wastewater removed.

March 07

21710

by Samuel Monte Parsons

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

TEMPORARY STABILIZATION

Key things to look for ...

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Are there any areas of the site that are disturbed, but will likely lie dormant for over 21 days? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have all dormant, disturbed areas been temporarily stabilized in their entirety? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have disturbed areas outside the silt fence been seeded or mulched? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have soil stockpiles that will sit for over 21 days been stabilized? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Has seed or mulch blown away? If so, repair. | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

CONSTRUCTION ENTRANCES

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has the drive been constructed by placing geotextile fabric under the stone? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the stone 2-inch diameter? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the stone been placed to a depth of 6 inches, with a width of 10 feet and a length of at least 50 feet (30 feet for entrances onto individual sublots)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. If the drive is placed on a slope, has a diversion berm been constructed across the drive to divert runoff away from the street or water resource? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. If drive is placed across a ditch, was a culvert pipe used to allow runoff to flow across the drive? | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

2/7/10

SEDIMENT PONDS

Key things to look for ...

	Yes	No
1. Are concentrated flows of runoff directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the sediment pond appropriately sized (67 cubic yards per acre of total drainage area)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized?	<input type="checkbox"/>	<input type="checkbox"/>
6. For sediment basins that dewater 100% between storms, is the riser pipe wrapped with chicken wire and double wrapped with geotextile fabric?	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the riser have 1-inch diameter holes spaced 4 inches apart, both horizontally and vertically?	<input type="checkbox"/>	<input type="checkbox"/>
8. For sediment basins, which dewater 60% between storms, is the diameter of the dewatering hole per plan?	<input type="checkbox"/>	<input type="checkbox"/>
9. For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped?	<input type="checkbox"/>	<input type="checkbox"/>
10. For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile?	<input type="checkbox"/>	<input type="checkbox"/>
11. Is the length-to-width ratio between inlet(s) and outlet at least 2:1? NOTE: if not, a baffle should be added to lengthen the distance.	<input type="checkbox"/>	<input type="checkbox"/>
12. Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet?	<input type="checkbox"/>	<input type="checkbox"/>
13. For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight?	<input type="checkbox"/>	<input type="checkbox"/>
14. Was the basin installed prior to grading the site?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed once the pond is half-full. Stabilize the dredged sediments with seed and mulch.	<input type="checkbox"/>	<input type="checkbox"/>

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

2/7/10

SILT FENCE

Key things to look for ...

	Yes	No
1. Is the fence at least 4" to 6" into the ground?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is the trench backfilled to prevent runoff from cutting underneath the fence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Is the fence pulled tight so it won't sag when water builds up behind it?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Is the fence placed on a level contour? If not, the fence will only act as a diversion.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Have all the gaps and tears in the fence been eliminated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Is the fence controlling an appropriate drainage area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

No major repairs needed at this time.

INLET PROTECTION

Key things to look for ...

	Yes	No
1. Does water pond around the inlet when it rains?	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the fabric been replaced when it develops tears or sags?	<input type="checkbox"/>	<input type="checkbox"/>
3. For curb inlet protection, does the fabric cover the entire grate, including the curb window?	<input type="checkbox"/>	<input type="checkbox"/>
4. For yard inlet protection, does the structure encircle the entire grate?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the fabric properly entrenched or anchored so that water passes through it and not under it?	<input type="checkbox"/>	<input type="checkbox"/>
6. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales.	<input type="checkbox"/>	<input type="checkbox"/>
7. Is sediment that has accumulated around the inlet removed on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

2/7/10

PERMANENT STABILIZATION

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Are any areas at final grade? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the soil been properly prepared to accept permanent seeding? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has seed and mulch been applied at the appropriate rate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. If rainfall has been inadequate, are seeded areas being watered? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap?
NOTE: Rock check dams may be needed to slow the flow of runoff. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Vegetation dead. Cap material very stable

NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is waste and packaging disposed of in a dumpster? Do not burn them on site. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have stream crossings been constructed entirely of non-erodible material? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? NOTE: If you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground. | <input type="checkbox"/> | <input type="checkbox"/> |

N/A

Water Removed from holding tanks

March 07

2/23/12

by Sam Moritz

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

TEMPORARY STABILIZATION

Key things to look for ...

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Are there any areas of the site that are disturbed, but will likely lie dormant for over 21 days? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have all dormant, disturbed areas been temporarily stabilized in their entirety? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have disturbed areas outside the silt fence been seeded or mulched? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have soil stockpiles that will sit for over 21 days been stabilized? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Has seed or mulch blown away? If so, repair. | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

CONSTRUCTION ENTRANCES

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has the drive been constructed by placing geotextile fabric under the stone? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the stone 2-inch diameter? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the stone been placed to a depth of 6 inches, with a width of 10 feet and a length of at least 50 feet (30 feet for entrances onto individual sublots)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. If the drive is placed on a slope, has a diversion berm been constructed across the drive to divert runoff away from the street or water resource? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. If drive is placed across a ditch, was a culvert pipe used to allow runoff to flow across the drive? | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

2/23/12

SEDIMENT PONDS

Key things to look for ...

	Yes	No
1. Are concentrated flows of runoff directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the sediment pond appropriately sized (67 cubic yards per acre of total drainage area)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized?	<input type="checkbox"/>	<input type="checkbox"/>
6. For sediment basins that dewater 100% between storms, is the riser pipe wrapped with chicken wire and double wrapped with geotextile fabric?	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the riser have 1-inch diameter holes spaced 4 inches apart, both horizontally and vertically?	<input type="checkbox"/>	<input type="checkbox"/>
8. For sediment basins, which dewater 60% between storms, is the diameter of the dewatering hole per plan?	<input type="checkbox"/>	<input type="checkbox"/>
9. For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped?	<input type="checkbox"/>	<input type="checkbox"/>
10. For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile?	<input type="checkbox"/>	<input type="checkbox"/>
11. Is the length-to-width ratio between inlet(s) and outlet at least 2:1? NOTE: If not, a baffle should be added to lengthen the distance.	<input type="checkbox"/>	<input type="checkbox"/>
12. Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet?	<input type="checkbox"/>	<input type="checkbox"/>
13. For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight?	<input type="checkbox"/>	<input type="checkbox"/>
14. Was the basin installed prior to grading the site?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed once the pond is half-full. Stabilize the dredged sediments with seed and mulch.	<input type="checkbox"/>	<input type="checkbox"/>

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

N/A

March 07

2/23/12

SILT FENCE

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 1. Is the fence at least 4" to 6" into the ground? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the trench backfilled to prevent runoff from cutting underneath the fence? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Is the fence pulled tight so it won't sag when water builds up behind it? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fence placed on a level contour? If not, the fence will only act as a diversion. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Have all the gaps and tears in the fence been eliminated. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Is the fence controlling an appropriate drainage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Repairs need. to fence on west side of property.
Sagging and broken stakes

INLET PROTECTION

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Does water pond around the inlet when it rains? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the fabric been replaced when it develops tears or sags? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. For curb inlet protection, does the fabric cover the entire grate, including the curb window? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. For yard inlet protection, does the structure encircle the entire grate? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fabric properly entrenched or anchored so that water passes through it and not under it? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Is sediment that has accumulated around the inlet removed on a regular basis? | <input type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

NA

March 07

2/23/12

PERMANENT STABILIZATION

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Are any areas at final grade? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the soil been properly prepared to accept permanent seeding? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has seed and mulch been applied at the appropriate rate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. If rainfall has been inadequate, are seeded areas being watered? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap?
NOTE: Rock check dams may be needed to slow the flow of runoff. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Cap Vegetation dead but caps stable.
Erosion mats in place where needed.

NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is waste and packaging disposed of in a dumpster? Do not burn them on site. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have stream crossings been constructed entirely of non-erodible material? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? NOTE: If you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground. | <input type="checkbox"/> | <input type="checkbox"/> |

N/A

2 loads of water removed on
2/22/12 approx 9000 gallons

March 07

03/19/2012

Dennis Miller

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

TEMPORARY STABILIZATION

Key things to look for --

- | | Yes | No |
|---|-------------------------------------|--------------------------|
| 1. Are there any areas of the site that are disturbed, but will likely lie dormant for over 21 days? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Have all dormant, disturbed areas been temporarily stabilized in their entirety? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Have disturbed areas outside the silt fence been seeded or mulched? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Have soil stockpiles that will sit for over 21 days been stabilized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Has seed or mulch blown away? If so, repair. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Not Applicable

CONSTRUCTION ENTRANCES

Key things to look for --

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Has the drive been constructed by placing geotextile fabric under the stone? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the stone 2-inch diameter? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the stone been placed to a depth of 6 inches, with a width of 10 feet and a length of at least 50 feet (30 feet for entrances onto individual sublots)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. If the drive is placed on a slope, has a diversion berm been constructed across the drive to divert runoff away from the street or water resources? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. If drive is placed across a ditch, was a culvert pipe used to allow runoff to flow across the drive? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Not Applicable

March 07

SEDIMENT PONDS

Key things to look for ...

	Yes	No
1. Are concentrated flows of runoff directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the sediment pond appropriately sized (67 cubic yards per acre of total drainage area)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized?	<input type="checkbox"/>	<input type="checkbox"/>
6. For sediment basins that dewater 100% between storms, is the riser pipe wrapped with chicken wire and double wrapped with geotextile fabric?	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the riser have 1-inch diameter holes spaced 4 inches apart, both horizontally and vertically?	<input type="checkbox"/>	<input type="checkbox"/>
8. For sediment basins, which dewater 80% between storms, is the diameter of the dewatering hole per plan?	<input type="checkbox"/>	<input type="checkbox"/>
9. For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped?	<input type="checkbox"/>	<input type="checkbox"/>
10. For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile?	<input type="checkbox"/>	<input type="checkbox"/>
11. Is the length-to-width ratio between inlet(s) and outlet at least 2:1? NOTE: If not, a baffle should be added to lengthen the distance.	<input type="checkbox"/>	<input type="checkbox"/>
12. Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet?	<input type="checkbox"/>	<input type="checkbox"/>
13. For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight?	<input type="checkbox"/>	<input type="checkbox"/>
14. Was the basin installed prior to grading the site?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed once the pond is half-full. Stabilize the dredged sediments with seed and mulch.	<input type="checkbox"/>	<input type="checkbox"/>

N/A

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Not Applicable

March 07

SILT FENCE

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 1. Is the fence at least 4" to 6" into the ground? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the trench backfilled to prevent runoff from cutting underneath the fence? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Is the fence pulled tight so it won't sag when water builds up behind it? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fence placed on a level contour? If not, the fence will only act as a diversion. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Have all the gaps and tears in the fence been eliminated. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Is the fence controlling an appropriate drainage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Pictures taken of areas in need of repair. Areas near BM-MW-5,
CF-MW-13, and CF-MW-11 require some attention and repair.

INLET PROTECTION

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 1. Does water pond around the inlet when it rains? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the fabric been replaced when it develops tears or sags? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. For curb inlet protection, does the fabric cover the entire grate, including the curb window? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. For yard inlet protection, does the structure enclose the entire grate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the fabric properly entrenched or anchored so that water passes through it and not under it? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Is sediment that has accumulated around the inlet removed on a regular basis? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Not Applicable

N/A

March 07

PERMANENT STABILIZATION

Key things to look for ...

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Are any areas at final grade? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the soil been properly prepared to accept permanent seeding? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has seed and mulch been applied at the appropriate rate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. If rainfall has been inadequate, are seeded areas being watered? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap?
NOTE: Rock check dams may be needed to slow the flow of runoff. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Saw woodchuck/groundhog with a burrow in the side of the slope
near CF-MW-6 facing oxbow in river. Pictures were taken

NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is waste and packaging disposed of in a dumpster? Do not burn them on site. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have stream crossings been constructed entirely of non-erodible material? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? NOTE: If you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground. | <input type="checkbox"/> | <input type="checkbox"/> |

Not Applicable

March 07

Appendix G – NJDEP Remedial Action Protectiveness/ Biennial Certification Forms



New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIAL ACTION PROTECTIVENESS /
BIENNIAL CERTIFICATION FORM – SOIL

Date Stamp
(For Department use only)

SECTION A. SITE NAME, LOCATION, AND INFORMATION

Site Name: Ventron/Velsicol OU-1

List all AKAs: _____

Street Address: See Supplement

Municipality: Wood-Ridge and Carlstadt (Township, Borough or City)

County: Bergen Zip Code: 07075

Program Interest (PI) Number(s): G000004547 Case Tracking Number(s): EPA No. NJD 980529879

Date of Each Final Remediation Document: CERCLA Site with EPA lead; Remedial Action Report (April 15, 2011)

Filing Date of Each Deed Notice/DER: See Supplement

Provide the Following for Each Deed Notice/DER:

Book # See Supplement Page # See Supplement Book # _____ Page # _____

Did the Municipal Block(s) and Lot(s) change since you filed the Deed Notice/DER or your last
submittal of the biennial certification and report?..... ☐ Yes ☒ No

If "Yes," list the new Municipal Block(s) and Lot(s) below:

Block # _____ Lot # _____ Block # _____ Lot # _____

Block # _____ Lot # _____ Block # _____ Lot # _____

Block # _____ Lot # _____ Block # _____ Lot # _____

Block # _____ Lot # _____ Block # _____ Lot # _____

1. Is this form being submitted pursuant to a remedial action permit? ☐ Yes ☒ No

2. Is the Person Responsible for Monitoring the Protectiveness of the Remedial Action required to
obtain a remedial action permit at this time? ☐ Yes ☒ No

3. Did you provide hard copies of this form to the municipal and county clerks for each municipality
and county in which the site is located; the local, county and regional health department for each
municipality and county in which the site is located; each current owner of the site; each current
operator of the site; the Pinelands Commission as applicable; and the Highlands Commission as
applicable? ☒ Yes ☐ No

4. Did you provide to NJDEP copies of this form in paper and PDF, and maps in GIS compatible
format? ☒ Yes ☐ No

SECTION B. FEES

☐ Biennial Certification Non Permit \$375.00

☐ Biennial Certification for Remedial Action Permit

Fee Billing Contact

Business Name: Not Applicable, CERCLA Site with EPA lead

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION C. CURRENT OWNER OF THE SITEChanged Since Last Submittal ☐

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section K), check box and go to Section D.

Full Legal Name of the Owner: See Supplement

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION D. CURRENT OPERATOR OF THE SITE

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section K), check box and go to Section E.

Full Legal Name of the Operator: See Supplement

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION E. CURRENT LESSEE OF THE SITE

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section K), check box and go to Section F.

Full Legal Name of the Lessee: Not Applicable

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION F. IEC CONDITIONS

Since the establishment of the Deed Notice/DER or the last submittal of the biennial certification and report, did you discover any Immediate Environmental Concern conditions pursuant to the NJDEP IEC Guidance? ☐ Yes ☒ No

If "Yes," provide the date of IEC Contaminant Source Control: _____

SECTION G. STATUTORY AND REGULATORY CHANGES

1. Have you evaluated all relevant remediation standards and guidance related to soil that have been modified subsequent to the establishment of the Deed Notice/DER or the last submittal of the biennial certification and report? ☒ Yes ☐ No
2. After the evaluation in 1, is the remedial action still protective of public health, safety and of the environment? ☒ Yes ☐ No

If "No," complete Section J.

SECTION H. PROPERTY USE (check all that apply)**Site Use at Time Deed Notice/DER was Filed**

- | | |
|--|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Park or recreational use |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Vacant |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government |
| <input type="checkbox"/> Landfill | <input checked="" type="checkbox"/> Other <u>Road, Rail Spur</u> |

Current Site Use

- | | |
|--|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Park or recreational use |
| <input type="checkbox"/> Residential* | <input checked="" type="checkbox"/> Vacant |
| <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Government |
| <input type="checkbox"/> School or child care* | <input type="checkbox"/> Future site use unknown |
| <input type="checkbox"/> Landfill | <input checked="" type="checkbox"/> Other <u>Road, Rail Spur</u> |

Intended Future Site Use, If Known

- | | |
|--|---|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Park or recreational use |
| <input type="checkbox"/> Residential* | <input checked="" type="checkbox"/> Vacant |
| <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Government |
| <input type="checkbox"/> School or child care* | <input type="checkbox"/> Future site use unknown |

* See question 5 below.

1. Describe the current site operations:

The Ventron/Vesicol OU-1 Site is comprised of an undeveloped area and a developed area. There are no current Site operations in the undeveloped area. In the developed area, there are four active warehouses, Wolf Warehouse, U.S. Life Warehouse, Prince Packaging, and Blum, that serve as active distribution warehouses and office space. In addition, the developed area consists of a parking lot, road, and a rail spur. The undeveloped area was and has not been developed and is located southeast of the developed portion of the Site.

- 2. Has the site use changed from that at the time the Deed Notice/DER was filed?**
- ☐
- Yes
- ☒
- No

If "Yes," go to 3. If "No," go to 7.

- 3. If the site use at the time the Deed Notice/DER was filed has changed, do you have to file a new Deed Notice?**
- ☐
- Yes
- ☐
- No

- 4. Did the new site use require additional remedial action?**
- ☐
- Yes
- ☐
- No

If "Yes," complete Section J.

- 5. Did you check residential, school, and/or licensed child care above?**
- ☐
- Yes
- ☐
- No

If "No," go to 7.

- 6. If the site use will change to residential, school, and or licensed child care, will you implement a presumptive remedy at the site pursuant to the NJDEP "Presumptive Remedy Guidance" dated 11/4/09?**
- ☐
- Yes
- ☐
- No

If "Yes," complete Section J. If "No," check one of the following:

- ☐ Will implement an alternate remedy pre-approved by the NJDEP; complete Section J.
☐ Will implement an unrestricted use remedy; complete Section J.

- 7. Has there been a zoning change or is a zoning change pending?**
- ☐
- Yes
- ☒
- No

If "No," go to Section I.

If "Yes," has the zoning change rendered or will it render the Remedial Action not protective of public health, safety and of the environment?

☐ Yes ☐ No

If "No," go to Section I.

If "Yes," describe the zoning change and complete Section J:

SECTION I. LAND DISTURBANCES

1. Have you conducted periodic inspections pursuant to N.J.A.C. 7:26E-8.5(a)2 to determine if disturbances of the engineering control and/or the remedial action have taken place since the Deed Notice/DER was filed or the last submittal of the biennial certification and report? ☒ Yes ☐ No

2. Have disturbances of the engineering controls and/or remedial action taken place since the Deed Notice/DER was filed or the last submittal of the biennial certification and report? ☒ Yes ☐ No

If "Yes," complete this entire section. If "No," go to Section J.

3. Did these disturbances render the remedial action not protective of public health, safety and of the environment? ☐ Yes ☒ No

4. Date of Disturbance: _____

Duration of Disturbance: Months _____ Days _____

Date NJDEP Hotline contacted: _____

Hotline Incident Number assigned: _____

Describe the disturbance:

Please see the Site inspection forms located in Appendix E of the Annual Report for maintenance and evaluation logs. Inspections occurred on March 15, June 30, September 20, and December 2, 2011 and February 23, May 17, August 15, and November 16, 2012 during the quarterly site inspections. A summary of the Deed notice inspections are found in Section 2.1 of the OM&M Annual Reports. Any soil disturbances were limited in nature, and did not result in unacceptable human exposure to soil contamination. Areas of previous soil disturbance were inspected to ensure that the areas had not expanded.

5. If soil excavation took place, was all excavated soil returned to its location of origin? ☒ Yes ☐ No

If "Yes," how much soil was removed and returned? _____

If "No," how much soil was removed? _____

Where was the soil taken? _____

Submit documents that demonstrate where the soil was taken.

6. Were the remedial action and engineering controls restored to the conditions stated in the Deed Notice/DER? ☒ Yes ☐ No

If "Yes," go to Section K. If "No," go to 7 and complete Section J.

7. Describe how the remedial action and the engineering control have been modified from that stated in the Deed Notice/DER:

SECTION J. ADDITIONAL REMEDIATION

1. If additional remedial action was required (Sections G, H, and I) that leads to a restricted use remedial action:

- Provide the date the Remedial Action Report was submitted to the Department _____;
- Provide the date the Remedial Action Report will be submitted to the Department _____, Section H, # 6 only;
- Attach a newly filed Deed Notice/DER to this form;

- If you have a remedial action permit, submit a Modification of Permit Form available at <http://www.nj.gov/dep/srp/forms> with this form.

2. If an unrestricted use presumptive remedy will be implemented:

- Provide the date the Remedial Action Report will be submitted to the Department _____;
- Attach a newly filed Termination of Deed Notice to this form;
- If you have a remedial action permit, submit a Termination of Permit Form available at <http://www.nj.gov/dep/srp/forms> with this form.

SECTION K. PERSON RESPONSIBLE FOR MONITORING THE PROTECTIVENESS OF THE REMEDIAL ACTION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for monitoring the protectiveness of the remedial action: Rohm & Haas Chemicals, LLC.

Representative First Name: Robert Representative Last Name: Casselberry

Title: Rohm & Haas, Remediation Manager, Corporate Global Remediation

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: 3100 State Road

City/Town: Croydon State: PA Zip Code: 19021

Email Address: rcasselberry@dow.com

Relationship to the Site (check all that apply)

- ☐ I am the current Owner
☐ I am the current Operator
☐ I am the current Lessee
☒ I am the Person who conducted the remediation
☐ I am the Permittee
☐ I am the Co-Permittee

This certification shall be signed by the person responsible for submitting the remedial action protectiveness certification in accordance with the Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I also understand that engineering and institutional controls must be evaluated and maintained to ensure they remain protective of public health and safety and the environment.

Based upon the information provided herein, I hereby certify that the remedial action(s) implemented at the site that includes engineering and/or institutional controls remains protective of public health and safety and the environment.

Signature: [Signature] Date: 8-15-2013

Name/Title: REMEDIAL ACTION MANAGER No Changes Since Last Submittal ☐

SECTION L. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENTLSRP ID Number: Not ApplicableFirst Name: CERCLA Site w/EPA lead

Last Name: _____

Phone Number: _____

Ext: _____

Fax: _____

Mailing Address: _____

City/Town: _____

State: _____

Zip Code: _____

Email Address: _____

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:☐ *directly oversaw and supervised all of the referenced remediation, and/or*☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: _____

Date: _____

LSRP Name/Title: _____

No Changes Since Last Submittal ☐

Company Name: _____

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

New Jersey Department of Environmental Protection
Site Remediation Program

Supplement to the *REMEDIATION ACTION PROTECTIVENESS/BIENNIAL*
CERTIFICATION FORM - SOIL

Site Name: Ventron/Velsicol OU-1

Due to formatting restrictions on the reporting form, this supplement contains information for a portion of Section A, Section C, and Section H that could not be entered directly into the form.

This supplement is being submitted because the Ventron/Velsicol OU-1 Site is comprised of multiple "deed notices". The information required to populate the "Street Address", "Filing Date of Each Deed Notice", the "Book #" and "Page #", the "Current Owner of Site", and "Current Operator of Site" for each Deed Notice does not fit in the space provided on the form.

The additional information presented in the below is a supplement to the information presented in Section A, Section C, and Section H.

SECTION A. STREET ADDRESS, FILING DATE OF EACH DEED NOTICE, BLOCK # AND PAGE #:

Property Name	Street Address	Book #	Page #
Wolf Warehouse	3 Ethel Boulevard, Wood-Ridge, New Jersey 07075	08043	00061
U.S. Life Warehouse (Reddy Raw)	1 Ethel Boulevard, Wood-Ridge, New Jersey	09587	00128
Undeveloped Area	located in the Borough of Wood- Ridge and the Borough of Carlstadt, New Jersey	00686 08551	00472 00691
Prince Packing	100 Blum Boulevard, Wood-Ridge, New Jersey, 07075	07803	00751
Blum	At the intersection of Park Place East and Blum Boulevard in Wood Ridge, New Jersey, 07075	06133	0023
EJB	The property is located in the northeast quadrant of the intersection of Park Place East and Ethel Boulevard	09587	00134
Ethel Boulevard	The property is located on Ethel Boulevard in Wood-Ridge, New Jersey	Not on record	Not on record

Property Name	Street Address	Book #	Page #
Norfolk Southern Railroad	The property is a railroad spur located in Wood-Ridge, New Jersey	Not on record	Not on record

SECTION C. CURRENT OWNER OF THE SITE:

Property Name	Owner Contact Information
Wolf Warehouse	Full Legal Name of the Owner: <i>JRMA Holding, LLC, President Container</i> First Name of Contact <i>Jonathan</i> Last Name of Contact: <i>Blonde</i> Title: <i>Not Available</i> Phone Number: <i>(201)-933-7500</i> Mailing Address: <i>PO Box 387</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey 07025</i> Email Address: <i>Not Available</i>
U.S. Life Warehouse (Reddy Raw)	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard,</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Undeveloped Area	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard,</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Prince Packing	Full Legal Name of the Owner: <i>Prince Packing Products, Inc.,</i> First Name of Contact <i>Marvin</i> Last Name of Contact: <i>Grossbard</i> Title: <i>President</i> Phone Number: <i>Not Available</i> Mailing Address: <i>100 Blum Boulevard</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey 07075</i> Email Address: <i>Not Available</i>

Blum	Full Legal Name of the Owner: <i>Julius Blum & Co., Inc.,</i> First Name of Contact <i>Joanne</i> Last Name of Contact: <i>Blum</i> Title: <i>President</i> Phone Number: <i>Not Available</i> Mailing Address: <i>50 Blum Boulevard</i> City/State/Zip Code: <i>Wood Ridge, New Jersey 07075</i> Email Address: <i>Not Available</i>
EJB	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Ethel Boulevard	Full Legal Name of the Owner: <i>Borough of Wood-Ridge</i> First Name of Contact <i>Paul</i> Last Name of Contact: <i>Sarlo</i> Title: <i>Mayor</i> Phone Number: <i>(201)-939-0202</i> Mailing Address: <i>85 Humboldt Street</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey</i> Email Address: <i>Not Available</i>
Norfolk Southern Railroad	Full Legal Name of the Owner: <i>Norfolk Southern Corporation</i> First Name of Contact: <i>Karin</i> Last Name of Contact: <i>Stamy</i> Title: Phone Number: <i>(757)-629-2864</i> Fax: <i>(757)-823-5825</i> Mailing Address: <i>Three Commercial Place</i> City/State/Zip Code: <i>Norfolk, Virginia, 23510</i> Email Address: <i>Karin.stamy@uscorp.com</i>

SECTION E. CURRENT OPERATOR OF SITE:

Property Name	Operator Contact Information
Wolf Warehouse	Full Name of the Operator: <i>Home Dynamix LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>(201) 807-0111</i> Mailing Address: <i>1 Carol Place</i> City/State/Zip Code: <i>Moonachie, NJ 07074</i> Email Address: <i>Not Available</i>
U.S. Life Warehouse (Reddy Raw)	Full Name of the Operator: <i>Reddy Raw</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i>

	Phone Number: (800)-875-4324 Mailing Address: One Ethel Boulevard City/State/Zip Code: , Wood-Ridge, New Jersey, 07075 Email Address: Not Available
Undeveloped Area	Same as Current Owner of Site, see Section C.
Prince Packing	Same as Current Owner of Site, see Section C.
Blum	Same as Current Owner of Site, see Section C.
EJB	Same as Current Owner of Site, see Section C.
Ethel Boulevard	Same as Current Owner of Site, see Section C.
Norfolk Southern Railroad	Same as Current Owner of Site, see Section C.

SECTION H. PROPERTY USE:

1. Describe the current site operations:

Property Name	Current Operations
Wolf Warehouse	Active Warehouse
U.S. Life Warehouse (Reddy Raw)	Active Warehouse
Undeveloped Area	No current site operations.
Prince Packing	Office and warehouse space
Blum	Office and warehouse space
EJB	Serves as a parking lot
Ethel Boulevard	Serves as a paved street
Norfolk Southern Railroad	Active rail spur that services facilities to the Northeast of the undeveloped area



New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIAL ACTION PROTECTIVENESS /
BIENNIAL CERTIFICATION FORM – GROUND WATER

Date Stamp
(For Department use only)

SECTION A. SITE NAME, LOCATION, AND INFORMATION

Site Name: Ventron/Velsicol OU-1

List all AKAs: _____

Street Address: See Supplement

Municipality: Wood-Ridge and Carlstadt (Township, Borough or City)

County: Bergen Zip Code: 07075

Program Interest (PI) Number(s): G000004547 Case Tracking Number(s): EPA No. NJD 980529879

Date of Each Final Remediation Document: CERCLA Site with EPA lead; Remedial Action Report (April 15, 2011)

Date CEA Was Established: April 15, 2011

Duration in Years of CEA: Indeterminate Areal Extent in Acres of CEA: 22.8 acres

1. Did the Municipal Block(s) and Lot(s) change since you established the CEA or your last submittal of the biennial certification and report? ☐ Yes ☒ No

If "Yes," list the new Municipal Block(s) and Lot(s) below:

Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____

2. Is this form being submitted pursuant to a remedial action permit? ☐ Yes ☒ No

3. Is the Person Responsible for Monitoring the Protectiveness of the Remedial Action required to obtain a remedial action permit at this time? ☐ Yes ☒ No

4. Did you provide hard copies of this form to the municipal and county clerks for each municipality and county in which the site is located; the local, county and regional health department for each municipality and county in which the site is located; each current owner of the site; each current operator of the site; each current property owner within the footprint of the CEA and the Pinelands Commission, as applicable, consistent with N.J.A.C.7:26E-8.3(b)5; and the Highlands Commission as applicable? ☒ Yes ☐ No

5. Did you provide to NJDEP copies of this form in paper and PDF? ☒ Yes ☐ No

SECTION B. FEES

- ☐ Biennial Certification Non Permit \$375.00
☐ Biennial Certification for Remedial Action Permit

Fee Billing Contact:

Business Name: Not Applicable, CERCLA Site with EPA lead

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION C. CURRENT OWNER OF THE SITEChanged Since Last Submittal ☐

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section O), check box and go to Section D.

Full Legal Name of the Owner: See Supplement

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION D. CURRENT OPERATOR OF THE SITE

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section O), check box and go to Section E.

Full Legal Name of the Operator: See Supplement

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION E. CURRENT LESSEE OF THE SITE

- ☐ If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section O), check box and go to Section F.

Full Legal Name of the Lessee: Not Applicable

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION F. IEC CONDITIONS

Since the establishment of the CEA or the last submittal of the biennial certification and report, did you discover any new Immediate Environmental Concern conditions? ☐ Yes ☒ No

If "No," go to G.

If "Yes," provide date IEC Contaminant Source Control Report was filed: _____

Indicate type(s) of IEC Conditions newly discovered: _____

SECTION G. STATUTORY AND REGULATORY CHANGES

1. Have you evaluated the Ground Water Quality Standards and other SRP regulations and guidance relevant to the CEA and any resulting vapor intrusion risk, that have been modified subsequent to the establishment of the CEA or the last submittal of the biennial certification and report? ☒ Yes ☐ No
2. After the evaluation in 1, was the remedial action still protective of public health, safety and of the environment? ☒ Yes ☐ No

If "No," complete Section N.

SECTION H. REMEDIAL ACTION (check all that apply)**Remedial action – Ground Water:**

- ☐ Potable Water Treatment – IEC
- ☐ Multiple Phase Extraction System
- ☐ SVE/Air Sparging
- ☐ Ozone Sparging
- ☐ Treatment – Type _____
- ☒ Containment
- ☐ Hydraulic Control
- ☐ Monitored Natural Attenuation
- ☐ Chemical Oxidation
- ☒ Other (specify) Monitoring and/or Maintenance Req

Remedial action – Vapor Intrusion:

- ☐ No remedial action required
- ☐ Sealed Vapor Barrier
- ☐ Soil Vapor Extraction System
- ☐ Subsurface Depressurization System
- ☒ Sealing of Openings and Cracks
- ☒ Monitoring and/or Maintenance Requirements
- ☐ Other (specify) _____
- ☐ Immediate Environmental Concern

The site is in the: ☐ Pinelands ☐ Highlands**SECTION I. PROPERTY USE** (check all that apply)**Site Use at Time CEA Was Established**

- | | |
|--|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Park or recreational use |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Vacant |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government |
| <input type="checkbox"/> Landfill | <input checked="" type="checkbox"/> Other <u>Road, Rail Spur</u> |

Current Site Use

- | | |
|--|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Park or recreational use |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Vacant |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government |
| <input type="checkbox"/> Landfill | <input checked="" type="checkbox"/> Other <u>Road, Rail Spur</u> |

Intended Future Site Use, if known

- | | |
|--|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Park or recreational use |
| <input type="checkbox"/> Residential | <input checked="" type="checkbox"/> Vacant |
| <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Government |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Future site use unknown |
| <input type="checkbox"/> Agricultural | <input checked="" type="checkbox"/> Other <u>Road, Rail Spur</u> |

1. Describe the current site operations:

The Ventron/Vesicol OU-1 Site is comprised of an undeveloped area and a developed area. There are no current Site operations in the undeveloped area. In the developed area, there are four active warehouses, Wolf Warehouse, U.S. Life Warehouse, Prince Packaging, and Blum, that serve as active distribution warehouses and office space. In addition, the developed area consists of a parking lot, road, and a rail spur. The undeveloped area was and has not been developed and is located southeast of the developed portion of the Site.

2. Has the site use changed from that at the time the CEA was established or the last submittal of the biennial certification and report?
- ☐
- Yes
- ☒
- No

If "Yes," go to 3. If "No," go to Section J.

3. Did the new site use require additional remediation?
- ☐
- Yes
- ☐
- No

If "Yes," complete Section N.

SECTION J. CURRENT OR PLANNED WATER USE WITHIN THE WELL SEARCH AREA (check all that apply)**Water Use Within the CEA When CEA Was Established**

- ☐ Potable
- ☐ Well Head Protection Area
 - ☐ Tier 1 ☐ Tier 2 ☐ Tier 3
- ☐ Irrigation
- ☐ Industrial
- ☐ Geothermal

Current Water Use Within the CEA Boundaries

- ☐ Potable
- ☐ Well Head Protection Area
 - ☐ Tier 1 ☐ Tier 2 ☐ Tier 3
- ☐ Irrigation
- ☐ Industrial
- ☐ Geothermal

1. Are the results of the well search attached to this form? ☒ Yes ☐ No
2. Has water use changed within the well search area from that at the time the CEA was established or since the last submittal of the biennial certification and report? ☐ Yes ☒ No
- If "Yes," complete item 3 in Section N.
3. Have any changes in water use changed the areal extent and or the duration of the CEA? ☐ Yes ☒ No
4. Have any of the following wells been installed within one mile up-gradient, side-gradient, and down-gradient of the CEA, since the last submission of the biennial certification and report? (check all that apply)
- ☐ Potable ☐ Industrial ☐ Irrigation
- ☐ Geothermal ☐ Production
5. Since the CEA was established or the last submittal of the biennial certification and report whichever is more recent, are there any planned changes in water use for the aquifers in which the CEA is located? ☐ Yes ☒ No
- Check all the sources that were evaluated to determine planned changes in water use:
- ☒ Municipal Master Plans
- ☒ Zoning Plans
- ☐ Local water purveyor plans and planning data pertaining to the existence of water lines and proposed future installation of water lines, wells or well fields
- ☒ Local and County ordinances restricting installation of potable wells
- ☐ Local and County boards of health
- ☒ Local planning officials
6. Did or could the actual or planned changes reported in items 1-5 above render the remedial action that includes the CEA not protective of public health, safety and of the environment? ☐ Yes ☒ No
- If "Yes," complete Section N.

SECTION K. VAPOR INTRUSION

If volatile contaminants are not included in the CEA check not applicable (NA) here and go to Section L ☐ NA

Change in the Ground Water Contaminant Fate and Transport

1. Was it necessary to re-evaluate the fate and transport of the ground water contaminant plume or the contaminants in the CEA with regard to vapor intrusion? ☐ Yes ☒ No
2. Based on the most recent data available, do any of the contaminants in the CEA exceed the current ground water screening levels in the NJDEP Vapor Intrusion Guidance? ☐ Yes ☒ No

Change in Property Use

Were there any changes in property use that increased the risk of vapor intrusion? ☐ Yes ☒ No

Vapor Intrusion Investigation

1. Did you investigate the vapor intrusion pathway pursuant to the NJDEP Vapor Intrusion Guidance? ☒ Yes ☐ No
- If "Yes," go to 2 and complete Section N. If "No," provide a written explanation for not evaluating the vapor intrusion pathway and go to Section L.
2. If the vapor intrusion pathway investigation in 1 indicates IEC conditions exist, provide the date of IEC Contaminant Source Control Report in Section F, above. If Vapor Concern conditions exist provide the date of the Vapor Concern Mitigation Response Action Report _____ and complete 3.
3. Was public notification conducted to notify all applicable parties listed at N.J.A.C. 7:26E-8.3(b)5 of the increased vapor intrusion risk? ☐ Yes ☐ No

SECTION L. LAND USE DISTURBANCES

1. Have disturbances of the land such as installation of a detention basin taken place?..... ☐ Yes ☒ No
If "Yes," complete this entire section. If "No," go to Section M.
2. Did these disturbances intercept the water table within the CEA area in such a way that ground water sampling was needed to determine if the ground water contaminant plume could discharge to surface water?..... ☐ Yes ☐ No
If "Yes," go to 3. If "No," go to Section M.
3. Does the ground water meet the more stringent of either the New Jersey Surface Water Quality Criteria, N.J.A.C. 7:9B or the Federal Surface Water Quality Criteria, CFR Part 131?..... ☐ Yes ☐ No
4. Did these disturbances result in a contaminated discharge to surface water that rendered the remedial action not protective of public health, safety and of the environment? ☐ Yes ☐ No
If "Yes," complete Section N.

SECTION M. CEA STATUS

1. Was the CEA originally established for a ground water natural attenuation remedial action?..... ☐ Yes ☒ No
2. Has the expiration date of the CEA passed? ☐ Yes ☒ No
- If "Yes," and 180 days have passed, attach the results of sampling conducted pursuant to N.J.A.C. 7:26E-8.6(b)7i.
 - If "No" but sampling was conducted pursuant to the remedial action work plan (RAW) or N.J.A.C. 7:26E-8.6(b)7iii, attach the results of the sampling. If applicable based on instructions, complete item 3 in Section N.
3. The results of ground water sampling conducted pursuant to N.J.A.C. 7:26E-8.6(b)7i or 8.6(b)7iii show that:
- ☐ Contaminant concentrations decreased to or below the applicable ground water quality standard throughout the entire area of the CEA; or
- ☒ Contaminant concentrations **did not** decrease to or below the applicable ground water quality standard throughout the entire area of the CEA.
4. If contaminant concentrations decreased to or below the applicable ground water quality standard throughout the entire area of the CEA:
- ☐ If you have a remedial action permit, submit the Termination of Permit Form with this form and check this box; or
- ☐ If you do not have a remedial action permit, submit a request to terminate the CEA with this form and check this box.
5. If sampling was conducted pursuant to N.J.A.C. 7:26E-8.6(b)7i and contaminant concentrations have **not** decreased to or below the applicable ground water quality standards throughout the entire area of the CEA, complete Section N.
6. Have monitoring wells associated with the CEA been damaged, vandalized, repaired, replaced, or decommissioned pursuant to N.J.S.A. 58:4A and N.J.A.C. 7:9D? ☒ Yes ☐ No
If "Yes," attach a description of what occurred and, if applicable, a copy of the Well Abandonment Report as specified at N.J.A.C. 7:26E-8.6(c)6 for each well that has been damaged, vandalized, repaired, replaced, or decommissioned. If wells have been replaced or additional wells installed complete item 3 in Section N.
7. Should the CEA be revised for any reason that did not require conducting additional remediation?..... ☐ Yes ☒ No
If yes, attach a revised CEA/WRA Fact Sheet form with any applicable or relevant Exhibits and indicate which major CEA component(s) should be revised: ☐ Contaminant List ☐ Boundaries ☐ Projected Term of CEA

SECTION N. ADDITIONAL REMEDIATION AND REQUIRED SUBMITTALS

1. If additional remediation was required list the Section letter corresponding to the work done, F, G, I, J, K and/or L _____, _____, _____, _____, _____ and:

- Provide the name(s) and date(s) of reports submitted to the Department that document the work done excluding the IEC and vapor intrusion related reports indicated in Sections F and K
Remedial Action Report (April 15, 2011), Operation, Maintenance, and Monitoring (OM&M) 2011 Annual Report _____
- _____ ; and attach
the applicable items listed below;

2. If ground water sampling pursuant to N.J.A.C. 7:26E-8.6(b)7i shows that contaminant concentrations have **not** decreased to or below the applicable ground water quality standards (see Section M) follow the instructions,
- ☐ Check here and attach the revised CEA application:
 - If you have a GW remedial action permit, submit with this form an application to modify the permit and check the appropriate box in 3 below; or
 - If you do not have a GW remedial action permit, check here ☐ if the GW Monitoring Plan spreadsheet is attached.
3. Per N.J.A.C. 7:26E-8.6(c)4, 5, 6, 7, 8, 12 and 13 complete the below and submit applicable documents with this form:
- ☐ Check here if question 2 in Section G was answered "No" and attach a table listing the regulatory, etc., changes;
 - ☐ Check here if the answer to question 2 in Section J was "Yes" and attach a scaled map showing the locations of any new wells or water lines within the well search area;
 - ☐ Check here if additional or replacement monitoring wells have been installed since the last submittal of the biennial certification and report, attach a map showing the locations of all monitoring wells associated with the CEA, the full monitoring well maintenance and evaluation log, and the construction specifications for each new or replacement well;
 - ☐ Check here if the actual or proposed changes or reevaluation listed at N.J.A.C. 7:26E-8.6(c)8 require or required additional remediation and attach a brief description of the additional remediation conducted or planned.
 - ☐ Check here if you are submitting an application to modify your remedial action permit for ground water;
 - ☐ Check here if an explanation of why contaminants are still present in ground water and a brief description of any additional remediation conducted must be attached because sampling pursuant to N.J.A.C. 7:26E-8.6(b)7i showed that ground water contaminant concentrations did **not** decrease to or below standards throughout the entire CEA.

SECTION O. PERSON RESPONSIBLE FOR MONITORING THE PROTECTIVENESS OF THE REMEDIAL ACTION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for monitoring the Protectiveness of the Remediation: Rohm and Haas Chemicals, LLC.

Representative First Name: Robert Representative Last Name: Casselberry

Title: Rohm & Haas, Remediation Manager, Corporate Global Remediation

Phone Number: (215) 785-7917 Ext: _____ Fax: _____

Mailing Address: 3100 State Road

City/Town: Croydon State: PA Zip Code: 19021

Email Address: rcasselberry@dow.com

Relationship to the Site (check all that apply)

- ☐ I am the current Owner
☐ I am the current Operator
☐ I am the current Lessee
☒ I am the Person who conducted the remediation
☐ I am the Permittee
☐ I am the Co-Permittee

This certification shall be signed by the person responsible for submitting the remedial action protectiveness certification in accordance with the Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I also understand that engineering and institutional controls must be evaluated and maintained to ensure they remain protective of public health and safety and the environment.

Based upon the information provided herein, I hereby certify that the remedial action(s) implemented at the site that includes engineering and/or institutional controls remains protective of public health and safety and the environment.

Signature:  Date: 3-19-2013

Name/Title: REMEDIAL ACTION MANAGER

SECTION P. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: N/A

First Name: _____ Last Name: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

- ☐ *directly oversaw and supervised all of the referenced remediation, and/or*
☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: _____ Date: _____

LSRP Name/Title: _____ No Changes Since Last Submittal ☐

Company Name: _____

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

New Jersey Department of Environmental Protection
Site Remediation Program

Supplement to the *REMEDIAL ACTION PROTECTIVENESS/BIENNIAL*
CERTIFICATION FORM - GROUNDWATER

Site Name: Ventron/Velsicol OU-1

Due to formatting restrictions on the reporting form, this supplement contains information for a portion of Section A that could not be entered directly into the form.

This supplement is being submitted because the Ventron/Velsicol OU-1 Site is comprised of multiple properties. The information required to populate the "Street Address", "Current Owner of the Site", "Current Operator of the Site", and "Current Site Operations" for each property does not fit in the space provided on the form.

The additional information presented in the below is a supplement to the information presented in Section C, Section E, Section I, Section J, and Section M.

SECTION C. CURRENT OWNER OF THE SITE:

Property Name	Owner Contact Information
Wolf Warehouse	Full Legal Name of the Owner: <i>JRMA Holding, LLC, President Container</i> First Name of Contact <i>Jonathan</i> Last Name of Contact: <i>Blonde</i> Title: <i>Not Available</i> Phone Number: <i>(201)-933-7500</i> Mailing Address: <i>PO Box 387</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey 07025</i> Email Address: <i>Not Available</i>
U.S. Life Warehouse (Reddy Raw)	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard,</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>

Undeveloped Area	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard,</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Prince Packing	Full Legal Name of the Owner: <i>Prince Packing Products, Inc.,</i> First Name of Contact <i>Marvin</i> Last Name of Contact: <i>Grossbard</i> Title: <i>President</i> Phone Number: <i>Not Available</i> Mailing Address: <i>100 Blum Boulevard</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey 07075</i> Email Address: <i>Not Available</i>
Blum	Full Legal Name of the Owner: <i>Julius Blum & Co., Inc.,</i> First Name of Contact <i>Joanne</i> Last Name of Contact: <i>Blum</i> Title: <i>President</i> Phone Number: <i>Not Available</i> Mailing Address: <i>50 Blum Boulevard</i> City/State/Zip Code: <i>Wood Ridge, New Jersey 07075</i> Email Address: <i>Not Available</i>
EJB	Full Legal Name of the Owner: <i>One Ethel Boulevard LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>Not Available</i> Mailing Address: <i>One Ethel Boulevard</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Ethel Boulevard	Full Legal Name of the Owner: <i>Borough of Wood-Ridge</i> First Name of Contact <i>Paul</i> Last Name of Contact: <i>Sarlo</i> Title: <i>Mayor</i> Phone Number: <i>(201)-939-0202</i> Mailing Address: <i>85 Humboldt Street</i> City/State/Zip Code: <i>Wood-Ridge, New Jersey</i> Email Address: <i>Not Available</i>
Norfolk Southern Railroad	Full Legal Name of the Owner: <i>Norfolk Southern Corporation</i> First Name of Contact: <i>Karin</i> Last Name of Contact: <i>Stamy</i> Title: Phone Number: <i>(757)-629-2864</i> Fax: <i>(757)-823-5825</i> Mailing Address: <i>Three Commercial Place</i> City/State/Zip Code: <i>Norfolk, Virginia, 23510</i> Email Address: <i>Karin.stamy@uscorp.com</i>

Note: The CEA is comprised of the Wolf Warehouse, U.S. Life Warehouse, and Undeveloped Area

SECTION E. CURRENT OPERATOR OF SITE:

Property Name	Operator Contact Information
Wolf Warehouse	Full Name of the Operator: <i>Home Dynamix LLC</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>(201) 807-0111</i> Mailing Address: <i>1 Carol Place</i> City/State/Zip Code: <i>Moonachie, NJ 07074</i> Email Address: <i>Not Available</i>
U.S. Life Warehouse (Reddy Raw)	Full Name of the Operator: <i>Reddy Raw</i> First Name of Contact: <i>Not Available</i> Last Name of Contact: <i>Not Available</i> Title: <i>Not Available</i> Phone Number: <i>(800)-875-4324</i> Mailing Address: <i>One Ethel Boulevard</i> City/State/Zip Code: <i>, Wood-Ridge, New Jersey, 07075</i> Email Address: <i>Not Available</i>
Undeveloped Area	Same as Current Owner of Site, see Section C.
Prince Packing	Same as Current Owner of Site, see Section C.
Blum	Same as Current Owner of Site, see Section C.
EJB	Same as Current Owner of Site, see Section C.
Ethel Boulevard	Same as Current Owner of Site, see Section C.
Norfolk Southern Railroad	Same as Current Owner of Site, see Section C.

SECTION I. PROPERTY USE:

- Describe the current site operations:

Property Name	Current Operations
Wolf Warehouse	Active Warehouse
U.S. Life Warehouse (Reddy Raw)	Active Warehouse
Undeveloped Area	No current site operations.
Prince Packing	Office and warehouse space
Blum	Office and warehouse space
EJB	Serves as a parking lot

Ethel Boulevard	Serves as a paved street
Norfolk Southern Railroad	Active rail spur that services facilities to the Northeast of the undeveloped area

Note: The CEA is comprised of the Wolf Warehouse, U.S. Life Warehouse, and Undeveloped Area

SECTION J. RESULTS OF WELL SEARCH:

1. Are the results of the well search attached to this form?

See Attached Table and Scaled Map

SECTION M. CEA STATUS

2. Has the expiration date of the CEA passed? If "No" but sampling was conducted pursuant to the remedial action work plan (RAW) or N.J.A.C. 7:26E-8.6(b)7iii, attach the results of the sampling.

Tables presenting the CEA groundwater sampling results are presented as Table 3 in both the OM&M 2011 Annual Report and OM&M 2012 Annual Report.

Section J - Well Search Results
Ventron/Velsicol Superfund Site Operatble Unit 1
Wood-Ridge and Carlstadt, New Jersey

Permit Number	Well Name	Well Use	Potentially Potable	Document	Date (permitted/drilled/sealed)	Physical Address	County	Municipality	Block	Lot	Easting (X)	Northing (Y)
E201008152	DW-1	Dewatering	No	Record	7/30/2010	651 12th Street	Bergen	Carlstadt Boro	84	2	607513	729981
E201008152	DW-1	Dewatering	No	Permit	7/30/2010	651 12th Street	Bergen	Carlstadt Boro	84	2	607519	729963
P200903472	DW1-21	Dewatering/Site Wide	No	Record	4/14/2009	5 ETHEL BLVD.	Bergen	Wood-Ridge Boro	229	8	608808	730611
P200903472	DW1-21	Dewatering/Site Wide	No	Permit	3/31/2009	5 ETHEL BLVD.	Bergen	Wood-Ridge Boro	229	8	608808	730611

Note: Dewatering well DW1-21 is located at the OU-1 Ventron/Velsicol Site and is no longer active. It is unknown if dewatering well DW-1 is currently active.

